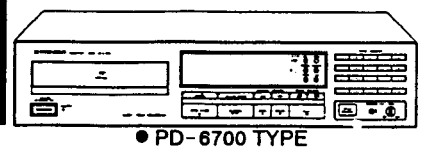
PIONEER
*The Art of Entertainment*

**GA-S**

# *Service Manual*



● PD-6700 TYPE

ORDER NO.
**ARP2193**

## COMPACT DISC PLAYER

# PD-5700

| Type | Model | | | | | Power Requirement | Remarks |
|---|---|---|---|---|---|---|---|
| | PD-6700 | PD-6700-S | PD-5700 | PD-5700-S | PD-4700 | | |
| KU | ○ | – | ○ | – | ○ | AC 120V only | |
| KC | ○ | – | ○ | – | ○ | AC 120V only | |
| KUXJ | ○ | – | ○ | – | ○ | AC 120V only | |
| KCXJ | ○ | – | ○ | – | ○ | AC 120V only | |
| SD | – | – | ○ | – | ○ | AC 110V, 120V-127V, 220V, 240V (switchable) | |
| UPW | – | – | ○ | – | ○ | AC 230V-240V | |
| MEMXJ | ○ | – | ○ | – | ○ | AC 220V-230V | |
| MEWMXJ | – | ○ | – | ○ | – | AC 220V-230V | |
| UBXJ | ○ | – | ○ | – | ○ | AC 230V-240V | |

- **This manual is applicable to the PD-6700/KU, KC, KUXJ, KCXJ, PD-5700/KU, KC, KUXJ, KCXJ, PD-4700/KU, KC, KUXJ and KCXJ types.**
- **As to the PD-6700/KC, KUXJ and KCXJ types, refer to pages 76.**
- **As to the PD-5700/KC, KUXJ and KCXJ types, refer to pages 76.**
- **As to the PD-4700/KC, KUXJ and KCXJ types, refer to pages 77.**
- **As to the other types, refer to applicable service manuals.**
- **Ce manuel pour le service comprend les explications de réglage en français.**
- **Este manual de servicio trata del método ajuste escrito en español.**

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**PIONEER ELECTRONIC CORPORATION** 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
**PIONEER ELECTRONICS SERVICE INC.** P.O. Box 1760, Long Beach, California 90801 U.S.A.
**PIONEER ELECTRONICS OF CANADA, INC.** 505 Cochrane Drive, Markham, Ontario L3R 8E3 Canada
**PIONEER ELECTRONIC [EUROPE] N.V.** Keetberglaan 1, 2740 Beveren, Belgium
**PIONEER ELECTRONICS AUSTRALIA PTY. LTD.** 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911


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This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

**WARNING**
**Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).**
**When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.**

# 1. SAFETY INFORMATION

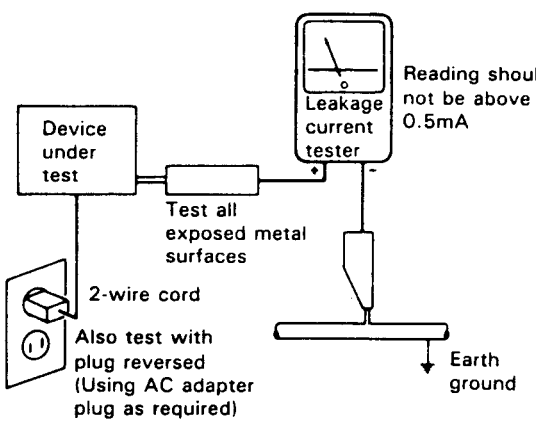
(FOR USA MODEL ONLY)

## 1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

**LEAKAGE CURRENT CHECK**

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5mA.


Leakage current tester
Reading should not be above 0.5mA
Device under test
Test all exposed metal surfaces
2-wire cord
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

**ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.**

## 2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

# 2. DISASSEMBLY

## ● REMOVING THE BONNET

① Remove six screws to the bonnet.
② Remove the bonnet by pulling up it in the vertically direction of arrow .
To easily remove the bonnet, pull outward on both sides of the bonnet then pull it diagonally toward the rear of the unit.
Note : If you pull up the rear base of the bonnet to remove it as in the conventional manner, the hooks shown in Fig. 2-1 may be caught and the hooks on the front panel side may be deformed.

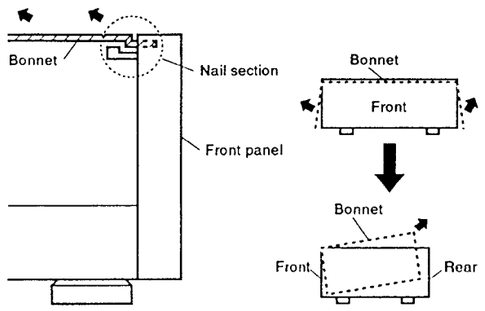



Fig. 2-1

## ● REMOVING THE TRAY

① Turn the POWER switch ON, and open the tray by the OPEN/CLOSE key. ( Refer to the Note 1 when opening the tray by hand-operated. )
② Pull out the tray slowly by pushing the nail of the tray section from two holes Ⓒ and Ⓓ of the clamper base ( Fig. 2-2 ) .
( It is necessary to push the nail of the tray section at the front panel portion. )
Note 1:How to open the tray by hand-operated

① Turn the gear B slowly in the direction of arrow by ⊖ screwdriver with care not to damage the gear B ( Fig. 2-2 ) .
② Turn gear B until the tray starts to move in the direction of the OPEN position.
③ Move the tray to the OPEN position by hand.

Note: When attaching the tray, be sure attach it when the servo mechanism assembly is in the completely lowered position ( when the rack has been moved all the way back ) .
Otherwise, the upward and downward movements of the servo mechanism assembly may not synchronize with the movements of the tray. If the tray has been incorrectly attached, re-attach it as follows.

① Remove the tray following Step 2 of "REMOVING THE TRAY".
② Move the rack all the way back by hand.
③ Install the tray.

## ● REMOVING THE FRONT PANEL

① Remove five screws Ⓐ ( Upper side is two screws and under side is three screws. ) to the front panel.
② Remove a screw Ⓑ to the Headphone board assembly ( Fig. 2-2 ) .
③ Disconnect two connectors CN351 and CN401 from the Mother board assembly ( Fig. 2-2 ) .
④ Remove the front panel and the Headphone board assembly together.
CAUTION : When CN351 is connected and disconnected, be sure to disconnect the AC power cord from the AC outlet. If not, microcomputer ( IC351 ) may be destroyed.

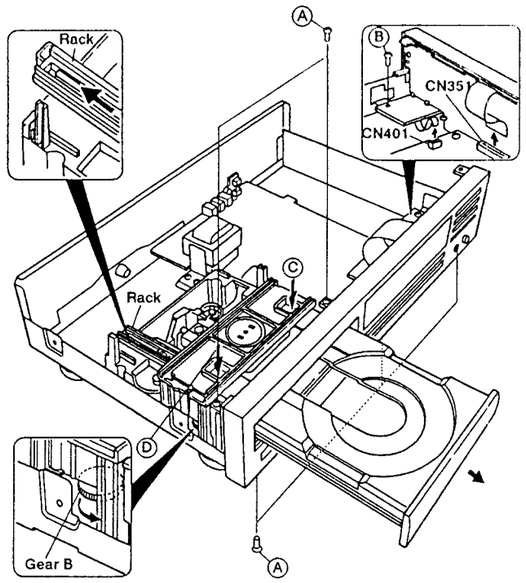



Fig. 2-2

## ● REMOVING THE SERVO MECHANISM ASSEMBLY

① Remove the tray.( Refer to the "REMOVING THE TRAY".)
② Remove the four screws Ⓔ and one screw Ⓕ with the servo mechanism assembly lowered ( to the tray-open position ) ( Fig. 2-3 )
③ To move the rack by hand, gear A and the gear section of the rack must be engaged at section Ⓖ ( see Fig. 2-3 ) .
Otherwise, the rack may not move. In this case, move gear B with a ⊖ screwdriver from the side and fit gear B and the gear section of the rack at the engaging section Ⓖ .

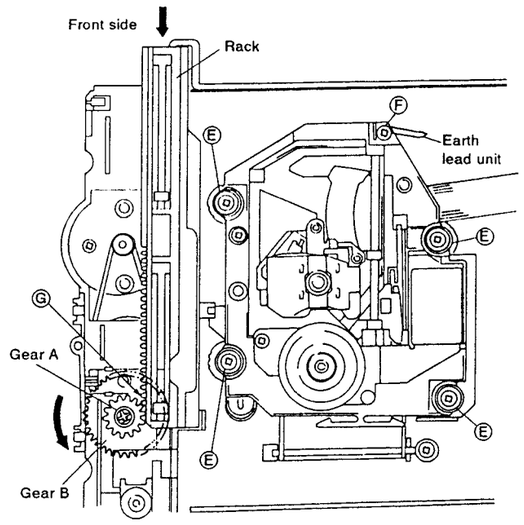



Fig. 2-3

④ Push the slide bushing at the front left with a thin implement such as a ⊖ screwdriver ( Fig. 2-4 ) .
⑤ Pull up the rear side H of the servo mechanism assembly. ( Arrow ① in Fig. 2-4 )
⑥ To release the engagement at section Ⓙ of the servo mechanism assembly, turn the assembly counterclockwise on the slide bushing Ⓘ ( Arrow ② in Fig. 2-4 )

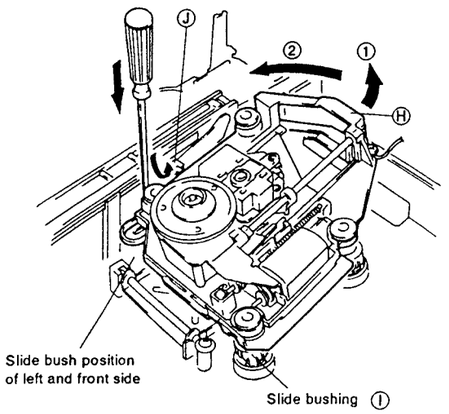



Fig. 2-4

## ● REMOVING THE SWING LEVER

① Move the rack manually so that section Ⓚ of the swing lever reaches the inclined part Ⓛ of a groove on the rack. ( see Fig. 2-5 )
② Remove screw Ⓜ which holds the shaft.
③ Slightly pull up the right side of the shaft ( the side of screw Ⓜ ) and pull the shaft outward in the direction of arrow ③ .

## ● REMOVING THE SLIDE BUSHING

① Compress the slide bushing from three directions as shown in Fig. 2-5.
② Remove the bushing by turning it in the direction of the arrow ④

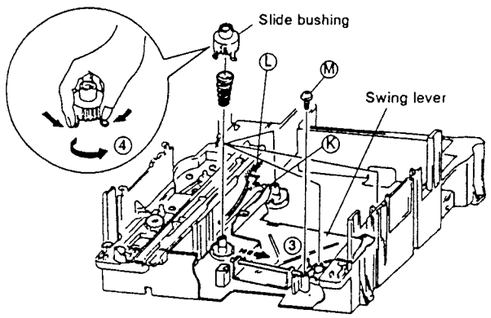
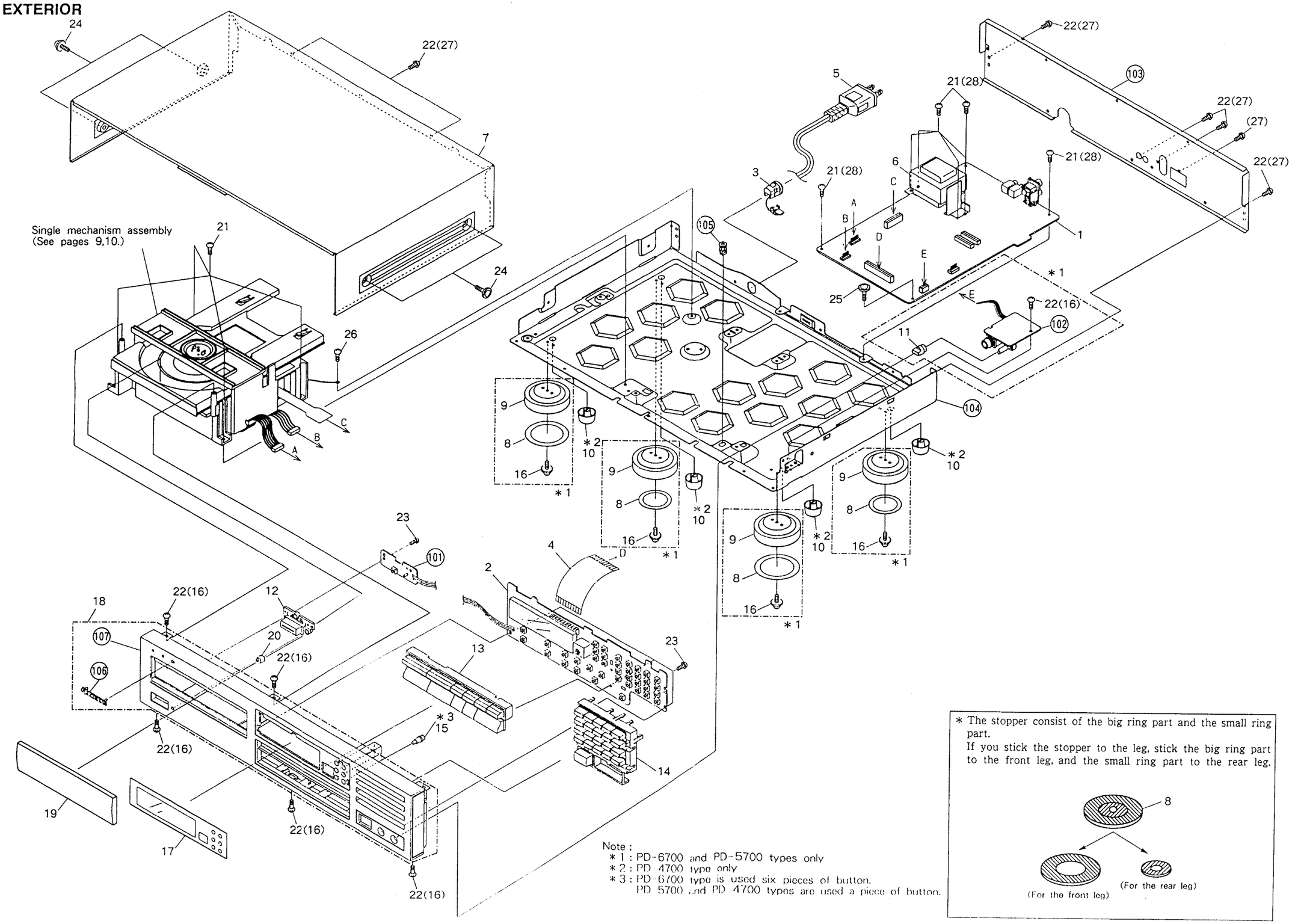



Fig. 2-5

# 3. EXPLODED VIEWS AND PARTS LIST

## 3.1 EXTERIOR




Note ;
*1 : PD-6700 and PD-5700 types only
*2 : PD-4700 type only
*3 : PD-6700 type is used six pieces of button.
PD-5700 and PD-4700 types are used a piece of button.

* The stopper consist of the big ring part and the small ring part.
If you stick the stopper to the leg, stick the big ring part to the front leg, and the small ring part to the rear leg.

*NOTES:*

- *Parts without part number cannot be supplied.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

## Parts List of Exterior Section

| Mark | No. | Description | Part No. |
|---|---|---|---|
| ◉ | 1 | Mother board assembly (PD-6700 type only) | PWM1429 |
| ◉ | 1 | Mother board assembly (PD-5700 type only) | PWM1425 |
| ◉ | 1 | Mother board assembly (PD-4700 type only) | PWM1421 |
| ◉ | 2 | Function board assembly (PD-6700 type only) | PWZ2103 |
| ◉ | 2 | Function board assembly (PD-5700 type only) | PWZ2096 |
| ◉ | 2 | Function board assembly (PD-4700 type only) | PWZ2094 |
| ⚠ | 3 | Strain relief (PD-6700 type only) | CM-22C |
| ⚠ | 3 | Strain relief (PD-5700 and PD-4700 types only) | CM-22 |
| | 4 | Flexible cable (30P) (PD-6700 and PD-5700 types only) | PDD1049 |
| | 4 | Flexible cable (28P) (PD-4700 type only) | PDD1070 |
| ⚠ | 5 | AC power cord (PD-6700 type only) | PDG1015 |
| ⚠ | 5 | AC power cord (PD-5700 and PD-4700 types only) | PDG1040 |
| ⚠ | 6 | Power transformer (AC120V) | PTT1187 |
| | 7 | Bonnet | PYY1147 |
| | 8 | Stopper (PD-6700 and PD-5700 types only) | PNM1070 |
| | 9 | Insulator (PD-6700 and PD-5700 types only) | VNK1095 |
| | 10 | Leg assembly (PD-4700 type only) | PXA1201 |
| | 11 | Headphone knob (PD-6700 and PD-5700 types only) | PAC1370 |
| | 12 | Power button | PAC1540 |
| | 13 | Play button B (PD-6700 and PD-5700 types only) | PAC1542 |
| | 13 | Play button A (PD-4700 type only) | PAC1541 |
| | 14 | Select button (PD-6700 type only) | PAC1545 |
| | 14 | Program button B (PD-5700 type only) | PAC1544 |
| | 14 | Program button A (PD-4700 type only) | PAC1543 |
| | 15 | Time button B (PD-6700 and PD-5700 types only) | PAC1549 |
| | 15 | Time button A (PD-4700 type only) | PAC1546 |
| | 16 | Screw (PD-6700 type only) | IBZ30P080FCC |
| | 17 | Display window CK (PD-6700 type only) | PAM1470 |
| | 17 | Display window BK (PD-5700 type only) | PAM1463 |
| | 17 | Display window AK (PD-4700 type only) | PAM1462 |
| | 18 | Function panel assembly (PD-6700 type only) | PEA1141 |
| | 18 | Function panel assembly (PD-5700 type only) | PEA1140 |
| | 18 | Function panel assembly (PD-4700 type only) | PEA1139 |
| | 19 | Tray name plate | PNW1900 |
| | 20 | LED lens | PNW2019 |
| | 21 | Screw | BBZ30P060FMC |
| | 22 | Screw | BBZ30P080FZK |
| | 23 | Screw | BBZ30P120FMC |
| | 24 | Screw | FBT40P080FZK |
| | 25 | Screw | IBZ30P150FCC |
| | 26 | Screw | PDZ30P050FMC |
| | 27 | Screw (PD-6700 type only) | BBZ30P080FCC |
| | 28 | Screw (PD-6700 type only) | IBZ30P060FCC |
| | 101 | Switch board assembly | |
| | 102 | Headphone board assembly (PD-6700 and PD-5700 types only) | |
| | 103 | Rear base | |
| | 104 | Under base | |
| | 105 | PCB spacer | |
| | 106 | PIONEER badge | |
| | 107 | Function panel C (PD-6700 type only) | |
| | 107 | Function panel B (PD-5700 type only) | |
| | 107 | Function panel A (PD-4700 type only) | |

## 3.2 MECHANISM SECTION

### Parts List of Mechanism Section

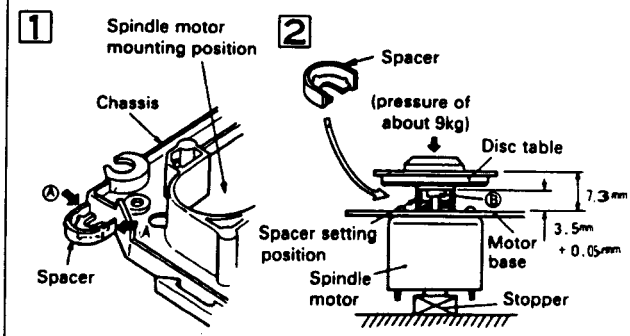
| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 1 | Lever switch (CLAMP) | DSK1003 |
| | 2 | Screw | PBA1042 |
| | 3 | Coil spring | PBH1085 |
| | 4 | Rubber belt | PEB1127 |
| | 5 | Motor pulley | PNW1634 |
| | 6 | Clamper base | PNW1673 |
| | 7 | Rack | PNW1674 |
| | 8 | Synchronized plate | PNW1675 |
| | 9 | Gear A | PNW1676 |
| | 10 | Gear B | PNW1677 |
| | 11 | Gear Pulley | PNW1678 |
| | 12 | Sensor head | PNW1679 |
| | 13 | Slide bushing | PNW1680 |
| | 14 | D. C. motor (0.75W) (LOADING) | PXM1010 |
| | 15 | Floating rubber | PEB1014 |
| | 16 | Floating rubber | PEB1132 |
| | 17 | Screw | BPZ26P080FMC |
| | 18 | Screw | IPZ30P080FMC |
| | 19 | Screw | PMZ26P040FMC |
| | 20 | Washer | WT26D047D025 |
| | 21 | Earth spring | PBH1009 |
| | 22 | Drive spring | PBH1084 |
| | 23 | Plate spring | PBK1057 |
| | 24 | Belt | PEB1072 |
| | 25 | Drive screw | PLA1003 |
| | 26 | Guide bar | PLA1071 |
| | 27 | Pulley | PNW1066 |
| | 28 | Half nut | PNW1605 |
| | 29 | Disc table | PNW1608 |
| | 30 | • • • • • | |
| | 31 | Push switch (INSIDE) | DSG1014 |
| | 32 | Screw | PBZ30P080FMC |
| | 33 | D. C. motor (1.7W) (CARRIAGE) | PXM1013 |
| | 34 | Screw | BPZ20P080FMC |
| | 35 | Screw | JFZ20P025FMC |
| | 36 | Screw | PMZ20P030FMC |
| | 37 | D. C. motor assembly (SPINDLE) (with oil) | PEA1028 |
| | 38 | Pickup assembly | PEA1030 |
| | 39 | Variable resistor (VR1) | PCP1008 |
| | 40 | Chip capacitor (C1001) | CKSYF105Z16 |
| | 41 | Washer | WA62D095D013 |
| | 42 | Tray | PNW1838 |
| | 43 | Swing lever | PNB1296 |

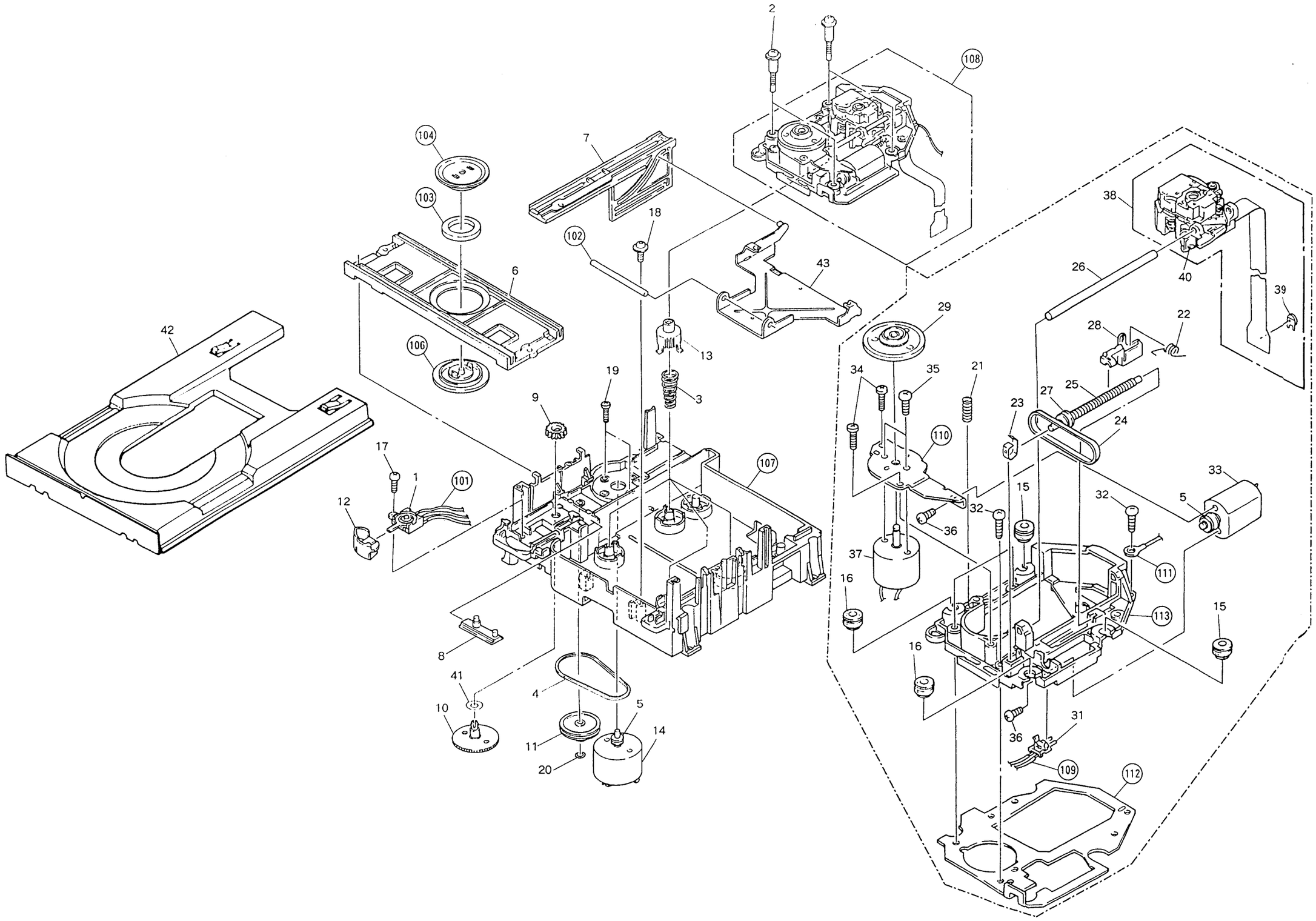
| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 101 | 2mm pitch connector assembly (5P) | |
| | 102 | Shaft | |
| | 103 | Clamp magnet | |
| | 104 | Yoke | |
| | 105 | • • • • • | |
| | 106 | Clamper S | |
| | 107 | Loading base | |
| | 108 | Servo mechanism assembly | |
| | 109 | 2mm pitch connector assembly (6P) | |
| | 110 | Motor base | |
| | 111 | Earth lead unit (300V) | |
| | 112 | Mechanism base | |
| | 113 | Mechanism chassis | |

### • How to install the disc table

1 Use nippers or other tool to cut the two sections marked Ⓐ in figure 1. Then remove the spacer.

2 While supporting the spindle motor shaft with the stopper, put spacer on top of the motor base (angled so it doesn't touch section Ⓑ), and stick the disc table on top (takes about 9kg pressure). Take off the spacer.

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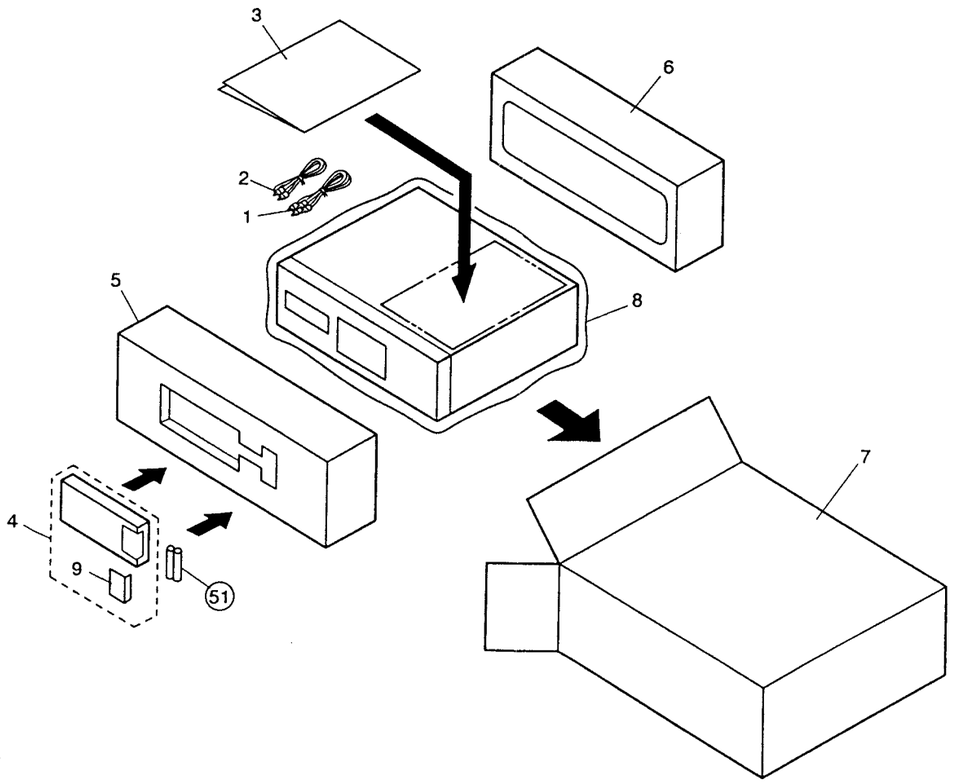
# 4. PACKING

**Parts List**

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | 1 | Connection cord with mini plug | PDE-319 |
| | 2 | Connection cord with pin plug | PDE1109 |
| | 3 | Operating instructions ( English ) | PRB1138 |
| | 4 | Remote control unit ( PD-6700 type ) | PWW1060 |
| | 4 | Remote control unit ( PD-5700 type ) | PWW1061 |
| | 5 | Protector F | PHA1116 |
| | 6 | Protector R | PHA1117 |
| | 7 | CD packing case ( PD-6700 type ) | PHG1700 |
| | 7 | CD packing case ( PD-5700 type ) | PHG1699 |
| | 7 | CD packing case ( PD-4700 type ) | PHG1698 |
| | 8 | Mirror mat sheet | Z23-007 |
| | 9 | Battery cover ( PD-6700 and PD-5700 types) | PZN1001 |
| | 51 | Dry cell battery(R03, AAA) | |




# 5. IC INFORMATION

## ■ PD2026A

D/A converter

### ● Pin Function

| No. | Pin Name | I/O | Function | No. | Pin Name | I/O | Function |
|---|---|---|---|---|---|---|---|
| 1 | P/$\overline{S}$ | I* | Switching the serial and parallel controls. | 20 | LATCH (EM1) | I* | Data latch signal input for attenuator when controlling the serial. Select the deemphasis filter mode when controlling the parallel. |
| 2 | RZ | O | Digital zero detection output of R ch. | | | | |
| 3 | $\overline{TEST}$ | I* | Test terminal (usually, use at "H") | | | | |
| 4 | VDA | – | Analog power supply for R ch DA converter. | 21 | SHIFT (EM2) | I | Shift clock input for attenuator when controlling the serial. Select the deemphasis filter mode when controlling the parallel. |
| 5 | RO | O | Data positive direction output of R ch. | | | | |
| 6 | $\overline{RO}$ | | Data reverse direction output of R ch. | | | | |
| 7 | GNDA | – | Analog ground for R ch DA converter. | | | | |
| 8 | GNDA | – | Analog ground for L ch DA converter. | | | | |
| 9 | $\overline{LO}$ | O | Data reverse output of L ch. | | | | |
| 10 | LO | | Data positive output of L ch. | 22 | ATT (MUTE) | I | Data input for attenuator when controlling the serial. Becomes muting terminal when controlling the parallel. Mute ON at "H". |
| 11 | VDA | – | Analog power supply for L ch DA converter. | | | | |
| 12 | GNDX | – | Ground of oscillating section. | 23 | OSCE | I* | System clock control. Stop the system clock at "L". |
| 13 | XI | I | Crystal oscillating circuit input. | | | | |
| 14 | XO | O | Crystal oscillating circuit output. | 24 | $\overline{RESET}$ | I* | Reset terminal. Reset the Σ Δ circuit at "L" and attenuate data becomes 00 (HEX). |
| 15 | VDX | – | Power supply of oscillating section. | | | | |
| 16 | GND | – | Ground of logic section. | 25 | DATA | I | Data input. |
| 17 | C | I* | Clock selection. "L" : 256fs , "H" : 384fs | 26 | BCK | | Bit clock input. |
| 18 | LZ | O | Digital zero detection output of L ch. | 27 | LRCK | | LR clock input (L ch data at "H"). |
| 19 | MCK | | System clock output. | 28 | VDD | – | Power supply of the logic section. |

EM1 L L H H
EM2 L H L H
Mode 44.1 OFF 48 32 (kHz)

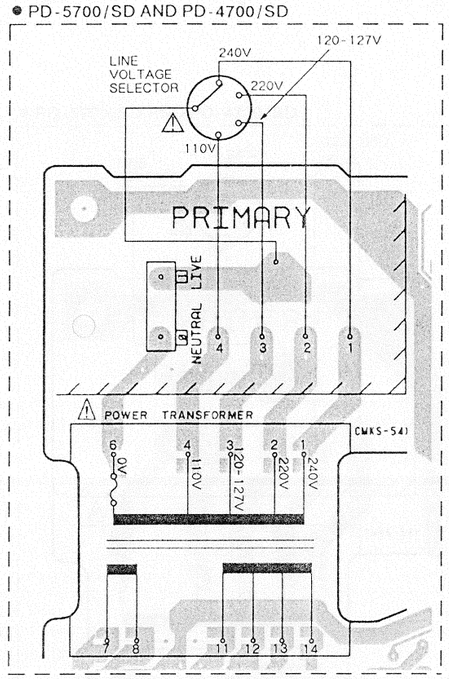
I* : Input terminals with pull-up resistor.

## 2.5 P.C. BOARD PATTERN

| P.C.B. pattern diagram Indication | Corresponding part symbol | Part name |
|---|---|---|
| | | Transistor |
| | | FET |
| | | Diode |
| | | Zenner diode |
| | | LED |
| | | Varactor |
| | | Tact switch |
| | | Inductor |
| | | Coil |
| | | Transformer |
| | | Filter |
| | | Ceramic capacitor |
| | | Mylar capacitor |
| | | Styrol capacitor |
| | | Electrolytic capacitor (Non polarized) |
| | | Electrolytic capacitor (Noiseless) |
| | | Electrolytic capacitor (Polarized) |
| | | Electrolytic capacitor (Polarized) |
| | | Power capacitor |
| | | Semi-fixed resistor |
| | | Resistor array |
| | | Resistor |
| | | Resonator |
| | | Thermistor |

1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the above Table.
3. The capacitor terminal marked with ▭ shows negative terminal.
4. The diode marked with ○ shows cathode side.
5. The transistor terminal marked with ▭ shows emitter.

● PD-5700/SD AND PD-4700/SD



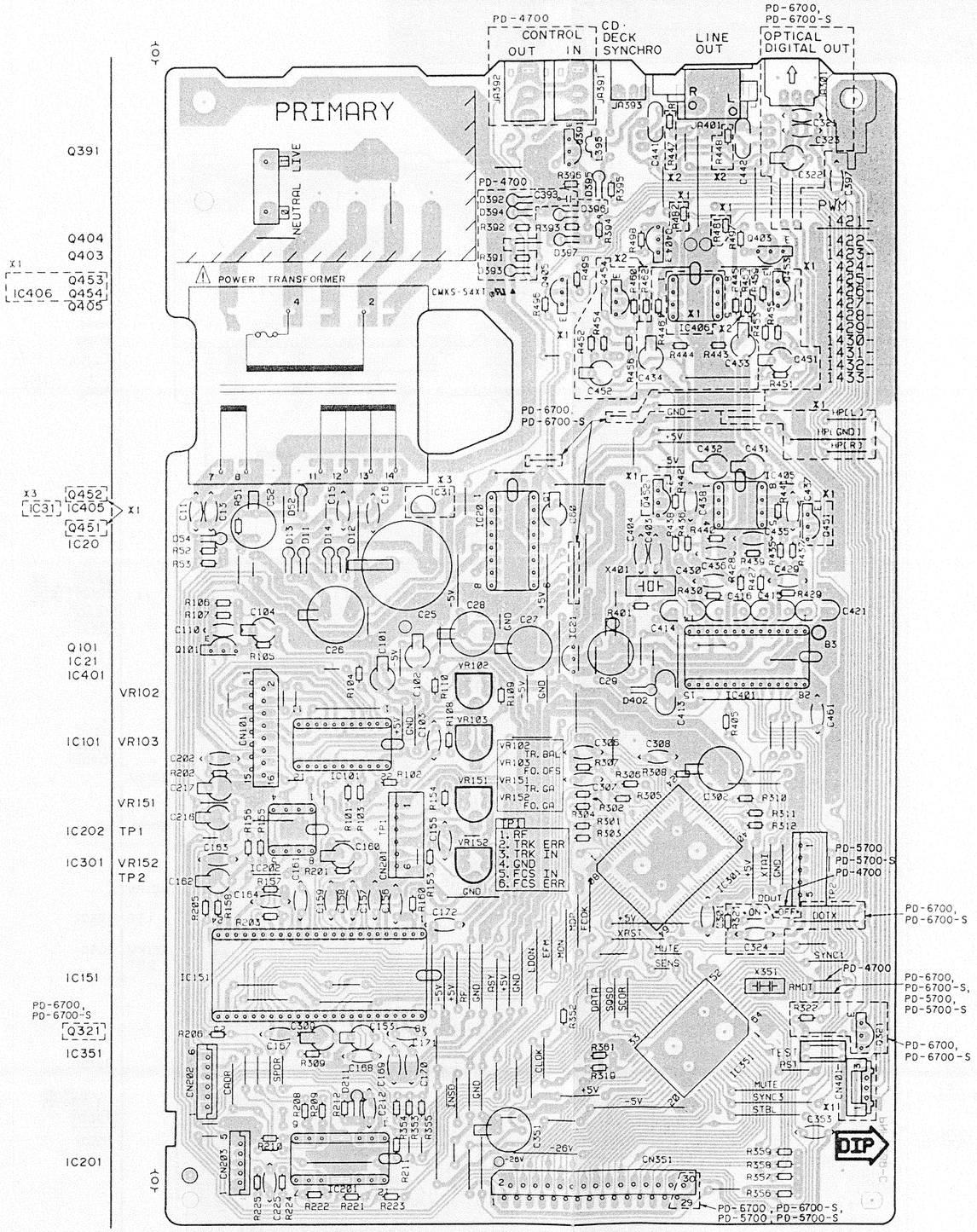

＊1 : EXCEPT PD-4700/SD

＊2

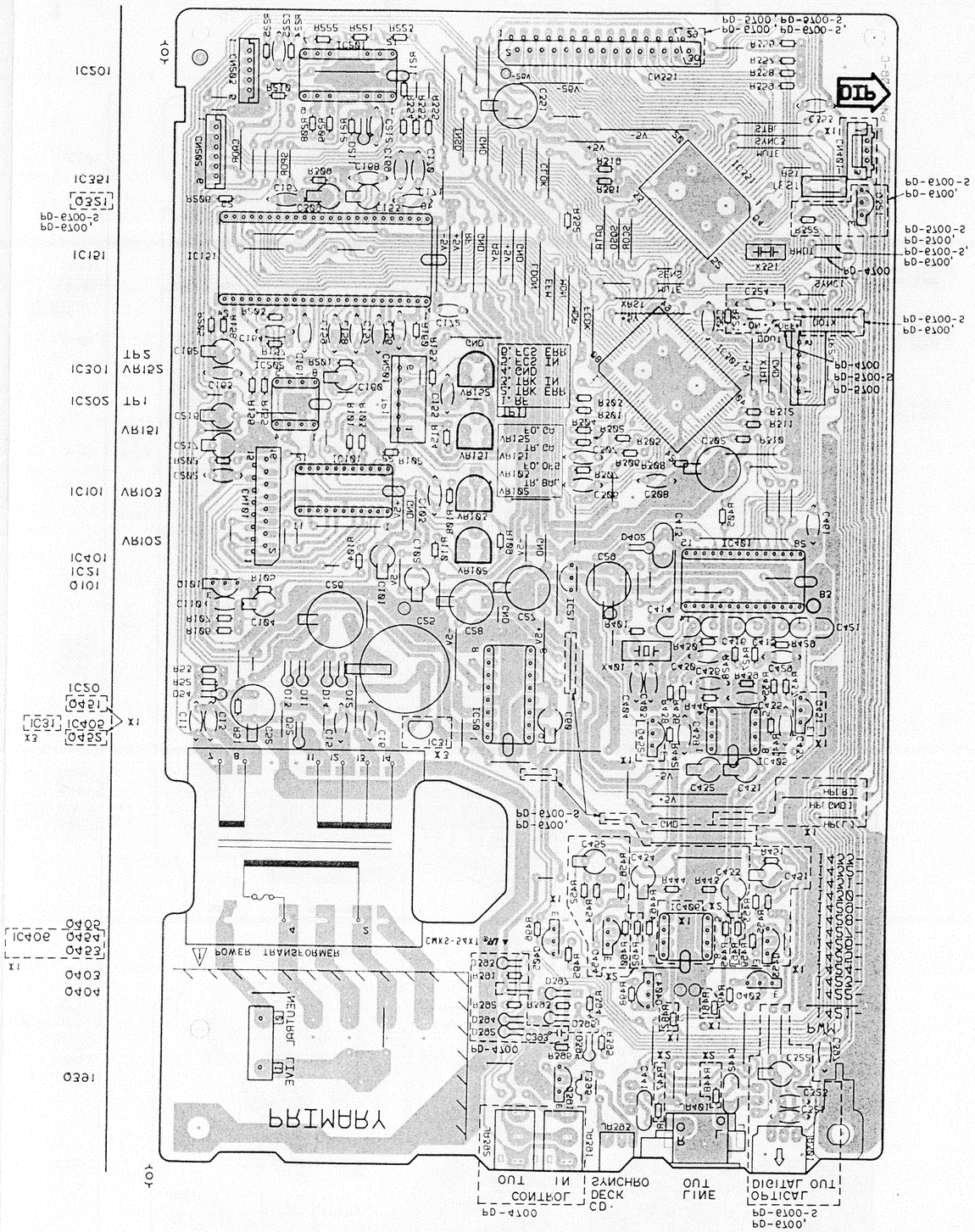
| | R447,R448,R461,R462 |
|---|---|
| PD-4700/SD | SHORT (JUMPER) |
| OTHERS | USED |

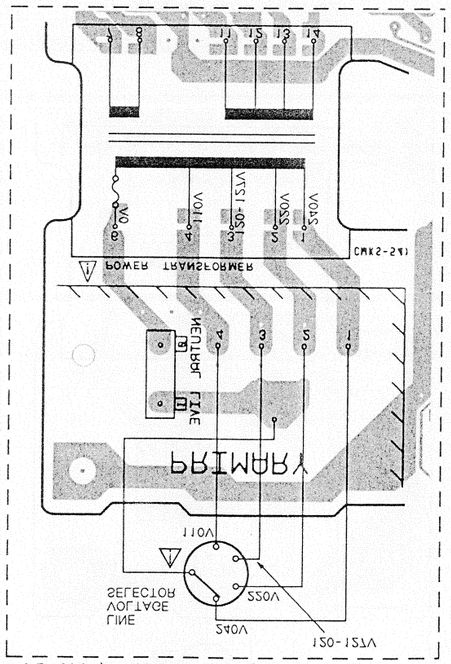
＊3

| | IC31 |
|---|---|
| PD-5700/SD<br>PD-4700/SD | SHORT<br>(JUMPER) |
| OTHERS | USED |



# PD-S200\WEMWXJ,PD-A200\WEMWXJ,UBXJ,SD,VLW
# PD-S200\WEMWXJ,UBXJ,SD,VLW
# PD-S300\WEMWXJ,PD-A300-S\WEMWXJ

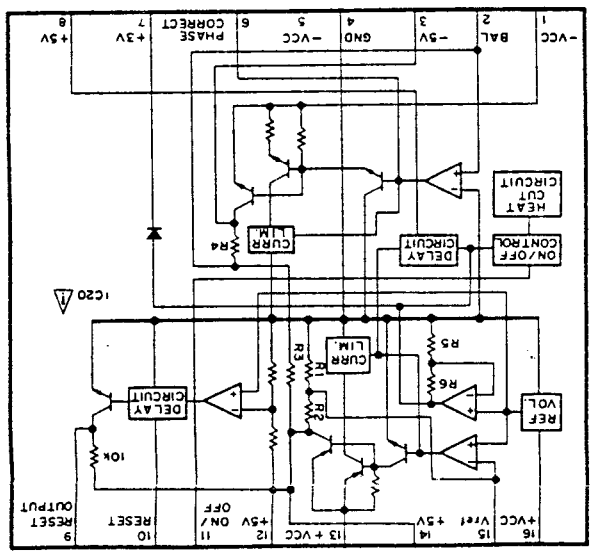


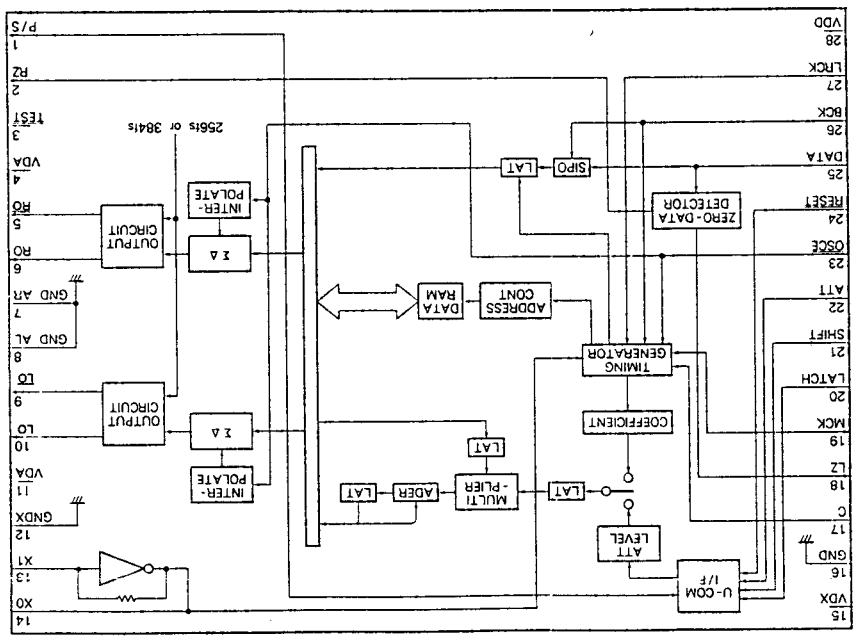

| | | |
|---|---|---|
| * 1 : EXCEPT PD-A100\SD | | |
| * 2 | 3AAR,1AAR,8AAR,7AAR | |
| | SHORT(NUMBER) PD-A100\SD-PD | OTHERS |
| * 3 | IC31 | |
| | SHORT PD-S200\SD-PD<br>(NUMBER) PD-A100\SD-PD | USED |
| | | OTHERS |

This P.C.B. connection diagram is viewed from the foil side.

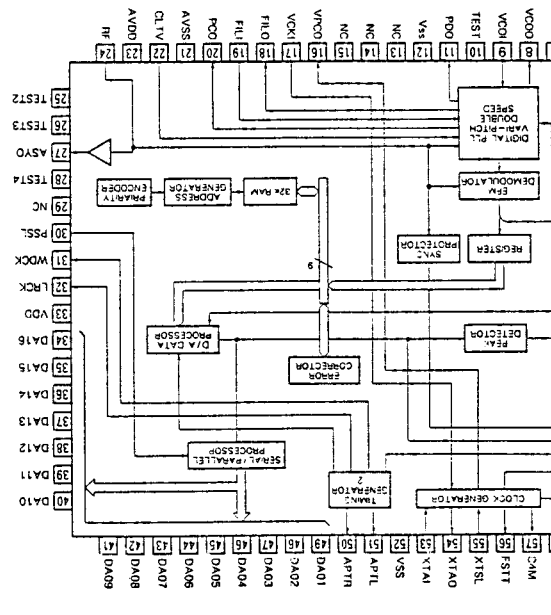
## P.C.B. BOARD PATTERN




IC20:M5298P




IC401:PD2026A



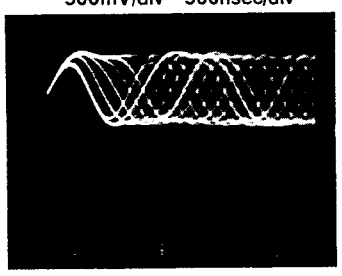

# 6. SCHEMATIC DIAGRAM

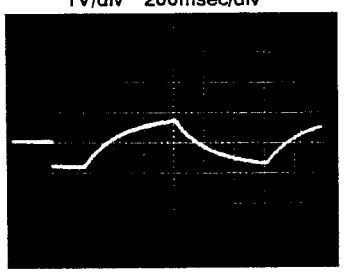
## 6.1 Wave Forms

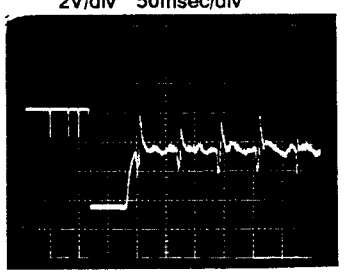
Note: The encircled numbers denote measuring in the schematic diagram.

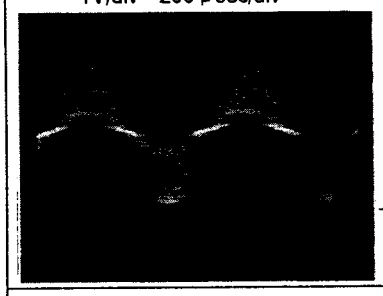
*1 50T-JUMP: After switching to the pause mode, press the manual search key.

*2 FOCUS-IN: Press the key without loading a disc.

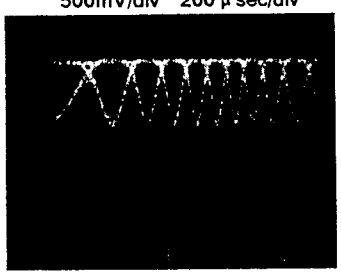
② TP1 - Pin 1:PLAY MODE (RF)
500mV/div 500nsec/div


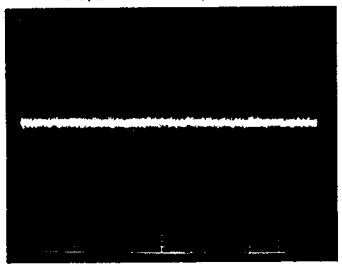

⑤ IC202 - Pin 1:FOCUS-IN (*2) MODE (FODR)
1V/div 200msec/div


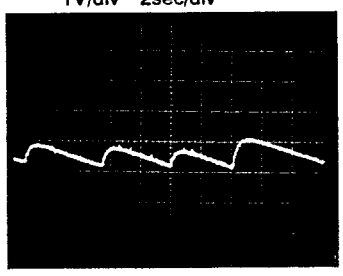

⑦ IC201 - Pin 3:TRACK SEARCH MODE (SPDR)
2V/div 50msec/div


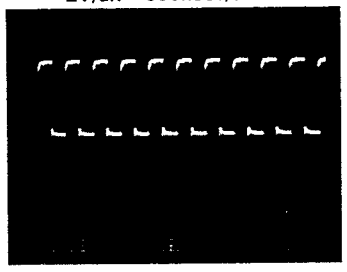

⑪ IC401 - Pin 10:PLAY MODE (1kHz) ( LO ) ( D/A DATA OUT )
1V/div 200 μ sec/div


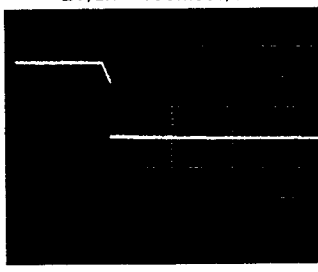

⑫ IC20 - Pin 9:POWER SWITC (RST)
2V/div 100msec/div

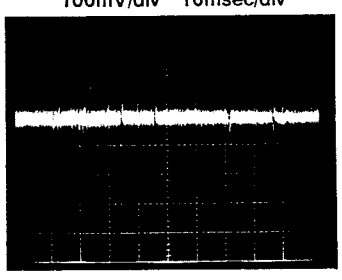
② TP1 - Pin 1:TRACK SEARCH MODE (RF)
500mV/div 200 μ sec/div


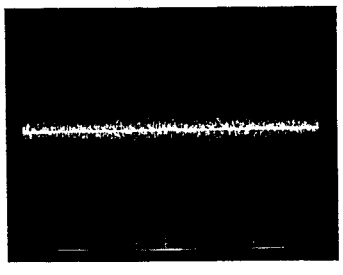

⑤ IC202 - Pin 1:PLAY MODE (FODR)
1V/div 1msec/div


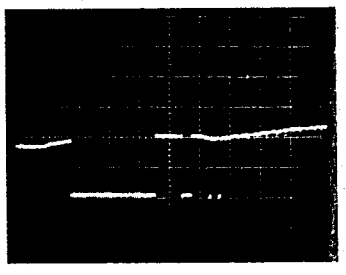

⑧ IC201 - Pin 4:PLAY MODE (CADR)
1V/div 2sec/div


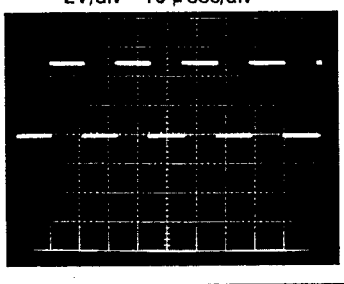

⑯ IC301 - Pin 35:PLAY MODE (1kHz) (BCLK)
2V/div 500nsec/div


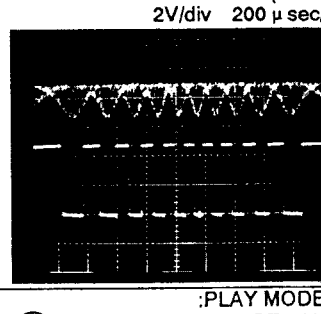

⑫ IC20 - Pin 9:POWER SWITC (RST)
2V/div 100msec/div


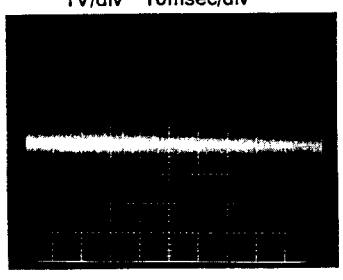
③ TP1 - Pin 6:PLAY MODE (FOER)
100mV/div 10msec/div


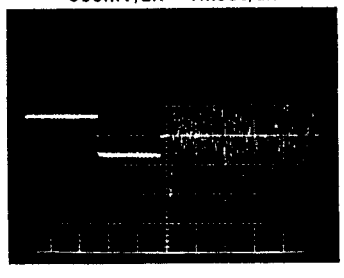

⑥ IC202 - Pin 3:PLAY MODE (TRDR)
500mV/div 1msec/div


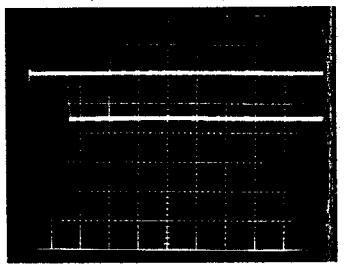

⑧ IC201 - Pin 4:TRACK SEARCH MODE (CADR)
2V/div 200msec/div


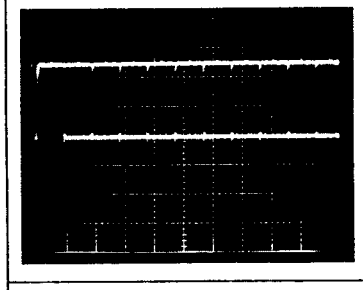

⑱ IC301 - Pin 32:PLAY MODE (1kHz) (LRCK)
2V/div 10 μ sec/div


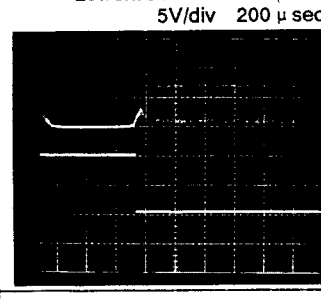

⑬ :TRACK SEARCH MO
Upper:TP1 - Pin 1 (RF) 1V/
Lower:IC151 - Pin 35 (MIRR
2V/div 200 μ sec


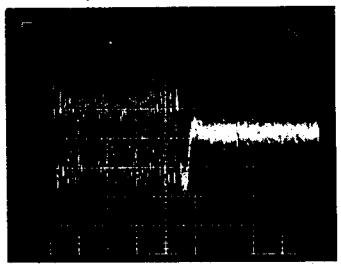
④ TP1 - Pin 2:PLAY MODE (TRER)
1V/div 10msec/div


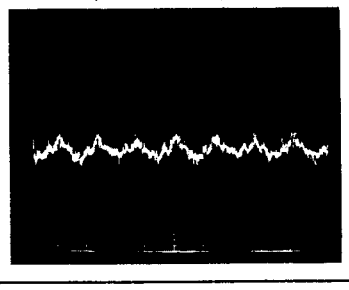

⑥ IC202 - Pin 3:50T-JUMP (*1) MODE (TRDR)
500mV/div 1msec/div


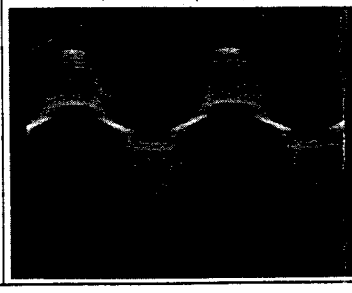

⑨ IC151 - Pin 38:PLAY MODE (EFM)
2V/div 500nsec/div


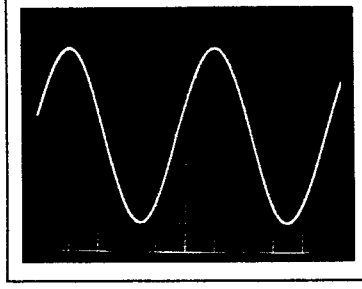

⑲ IC301 - Pin 34:PLAY MODE (1kHz) (DATA)
2V/div 500nsec/div


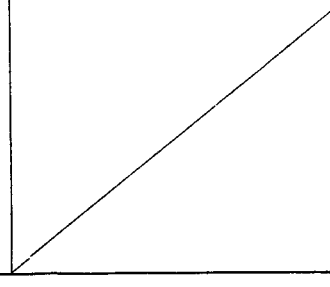

⑭ :PLAY MODE
Upper:TP1 - Pin 1 (RF) 1V/
Lower:IC151 - Pin 36 (DFC
5V/div 200 μ sec


④ TP1 - Pin 2:50T-JUMP (*1) MODE (TRER)
1V/div 1msec/div


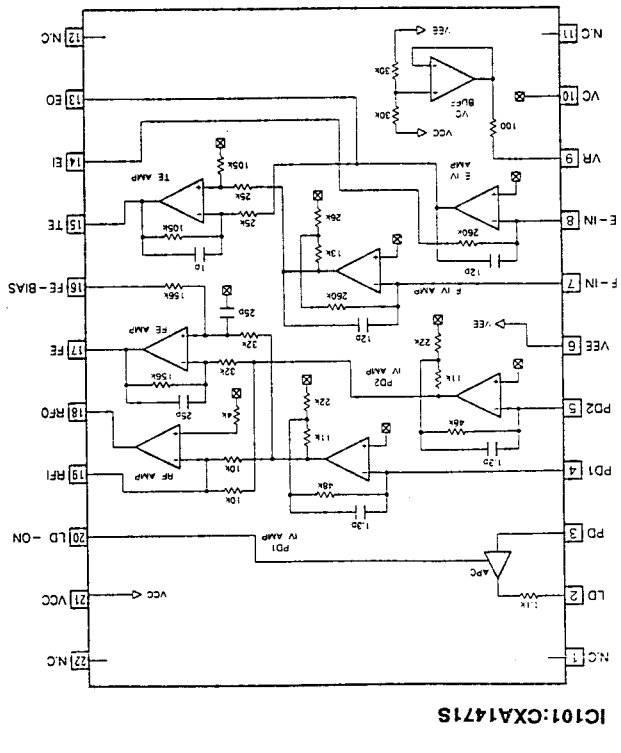

⑦ IC201 - Pin 3:PLAY MODE (SPDR)
1V/div 50msec/div



⑩ IC401 - Pin 9:PLAY MODE (1kHz) ( LO ) (D/A DATA OUT)
1V/div 200 μ sec/div


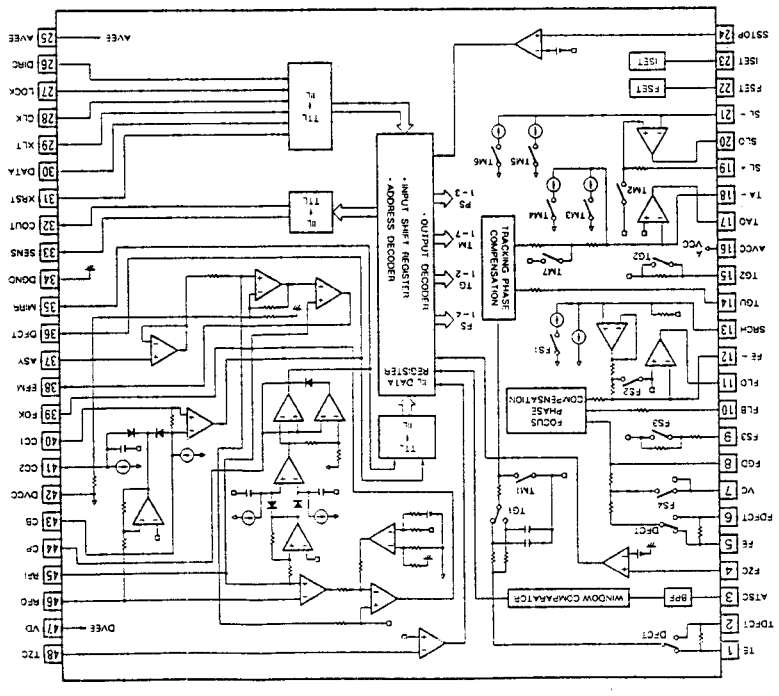

㉑ Pin - OUTPUT:PLAY MODE(1kHz)
1V/div 200 μ sec/div



㉕


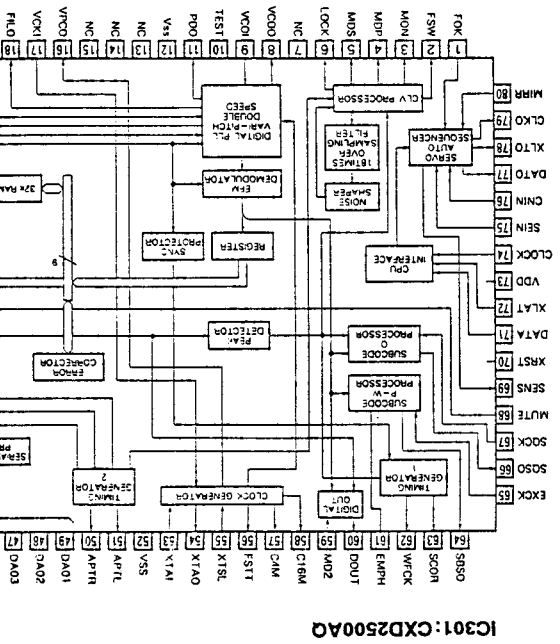
IC101:CXA1471S




IC151:CXA1372S




IC301:CXD2500AQ




## IC BLOCK DIAGRAMS

1. RESISTORS :
Indicated in Ω , 1/4W, 1/6W and 1/8W, ± 5% tolerance unless otherwise noted k;k Ω , M;M Ω , (F); ± 1%, (G); ± 2%, (K); ± 10%, (M); ± 20% tolerance.

2. CAPACITORS :
Indicated in capacity( μF)/voltage(V)unless otherwise noted p ; pF. Indication without voltage is 50V except electrolytic capacitor.

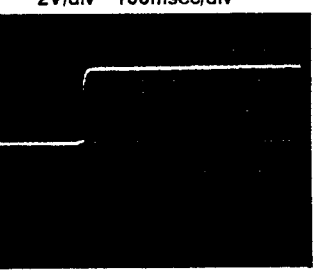
3. VOLTAGE, CURRENT :
▭ ;DC voltage(V)at play state.
⇦ mA ;DC current at play state.
Value in( )is DC current at stop state.

4. OTHERS :
➡ ;Signal route.
⊘ ;Adjusting point.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
※ marked capacitors and resistors have parts numbers.

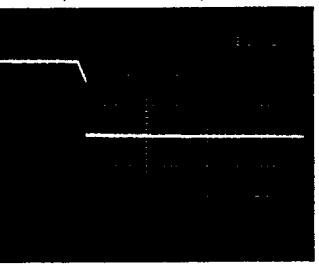
This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

5. SWITCHES : (The underlined indicates the switch position)
SWITCH BOARD ASSEMBLY
S801 : POWER ON — OFF
FUNCTION BOARD ASSEMBLY
(PD - 6700 TYPE)
S701 : PEAK SEARCH
S702 : CHECK
S703 : CLEAR
S704 : PGM
S705 : EDIT
S706 : RANDOM PLAY
S707 : ▷▷ ┐ MANUAL SEARCH
S708 : ◁◁ ┘
S709 : STOP(□)
S710 : PLAY(▷)
S711 : ▷▷| ┐ TRACK SEARCH
S712 : |◁◁ ┘
S713 : PAUSE(▯▯)
S714 : 17 ┐
S715 : 18 │
S716 : 19 │
S717 : 20 │
S718 : 14 │ TRACK NUMBER
S719 : 15 │
S720 : 16 │
S721 : 11 │
S722 : 12 │
S723 : 13 ┘
S724 : OPEN/CLOSE( ⏏ )
S725 : HI - LITE SCAN
S726 : REPEAT
S727 : TIME
S728 : 10 ┐
S729 : 9 │
S730 : 8 │
S731 : 7 │
S732 : >20 │ TRACK NUMBER
S733 : 6 │
S734 : 5 │
S735 : 4 │
S737 : 3 │
S738 : 2 │
S739 : 1 ┘

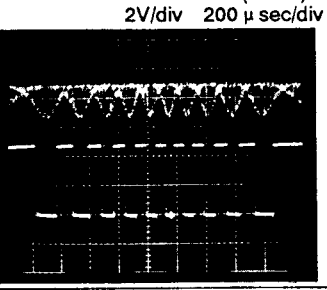
FUNCTION BOARD ASSEMBLY
(PD - 5700 AND PD4700 TYPES)
S701 : PEAK SEARCH
S702 : CHECK
S703 : CLEAR
S704 : PGM
S705 : EDIT
S706 : RANDOM PLAY
S707 : ▷▷ ┐ MANUAL SEARCH
S708 : ◁◁ ┘
S709 : STOP(□)
S710 : PLAY(▷)
S711 : ▷▷| ┐ TRACK SEARCH
S712 : |◁◁ ┘
S713 : PAUSE(▯▯)
S724 : OPEN/CLOSE( ⏏ )
S725 : HI - LITE SCAN
S726 : REPEAT
S727 : TIME
S728 : 10 ┐
S729 : 9 │
S730 : 8 │
S731 : 7 │
S732 : >20 │ TRACK NUMBER
S733 : 6 │
S734 : 5 │
S735 : 4 │
S736 : +10 │
S737 : 3 │
S738 : 2 │
S739 : 1 ┘

(22) IC20 - Pin 9:POWER SWITCH - ON (RST)
2V/div 100msec/div


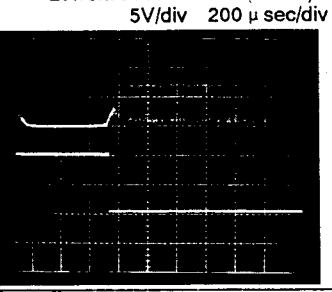

(26)

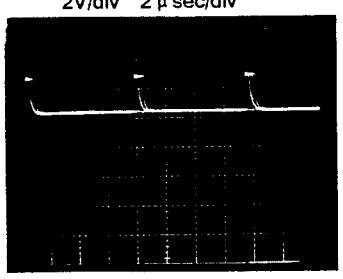
(22) IC20 - Pin 9:POWER SWITCH - OFF (RST)
2V/div 100msec/div



(27)

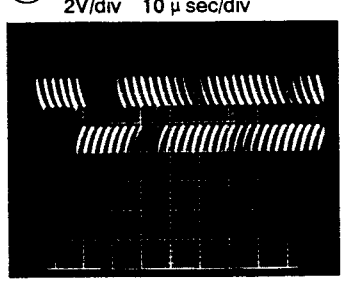
(23) :TRACK SEARCH MODE
Upper:TP1 - Pin 1 (RF) 1V/div
Lower:IC151 - Pin 35 (MIRR)
2V/div 200 μ sec/div



(28)

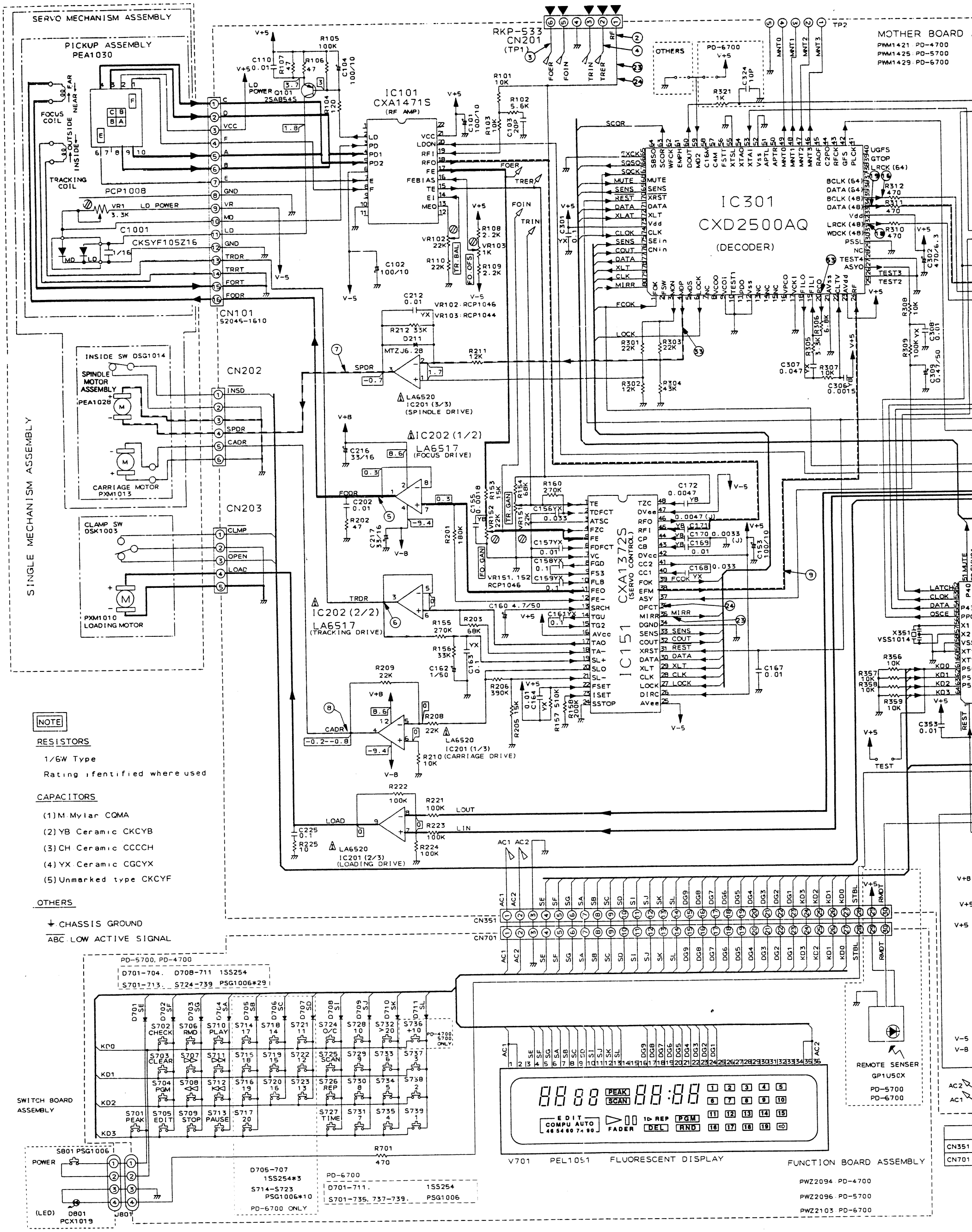
(24) :PLAY MODE
Upper:TP1 - Pin 1 (RF) 1V/div
Lower:IC151 - Pin 36 (DFCT)
5V/div 200 μ sec/div



(33) IC301 - Pin 4:PLAY MODE
(MDP)
2V/div 2 μ sec/div



(25)

(53) IC301 - Pin 20:PLAY MODE
(PCO)
2V/div 10 μ sec/div


## 6.2 SCHEMATIC DIAGRAM




NOTE

RESISTORS

1/6W Type

Rating ifentified where used

CAPACITORS

(1) M Mylar CQMA

(2) YB Ceramic CKCYB

(3) CH Ceramic CCCCH

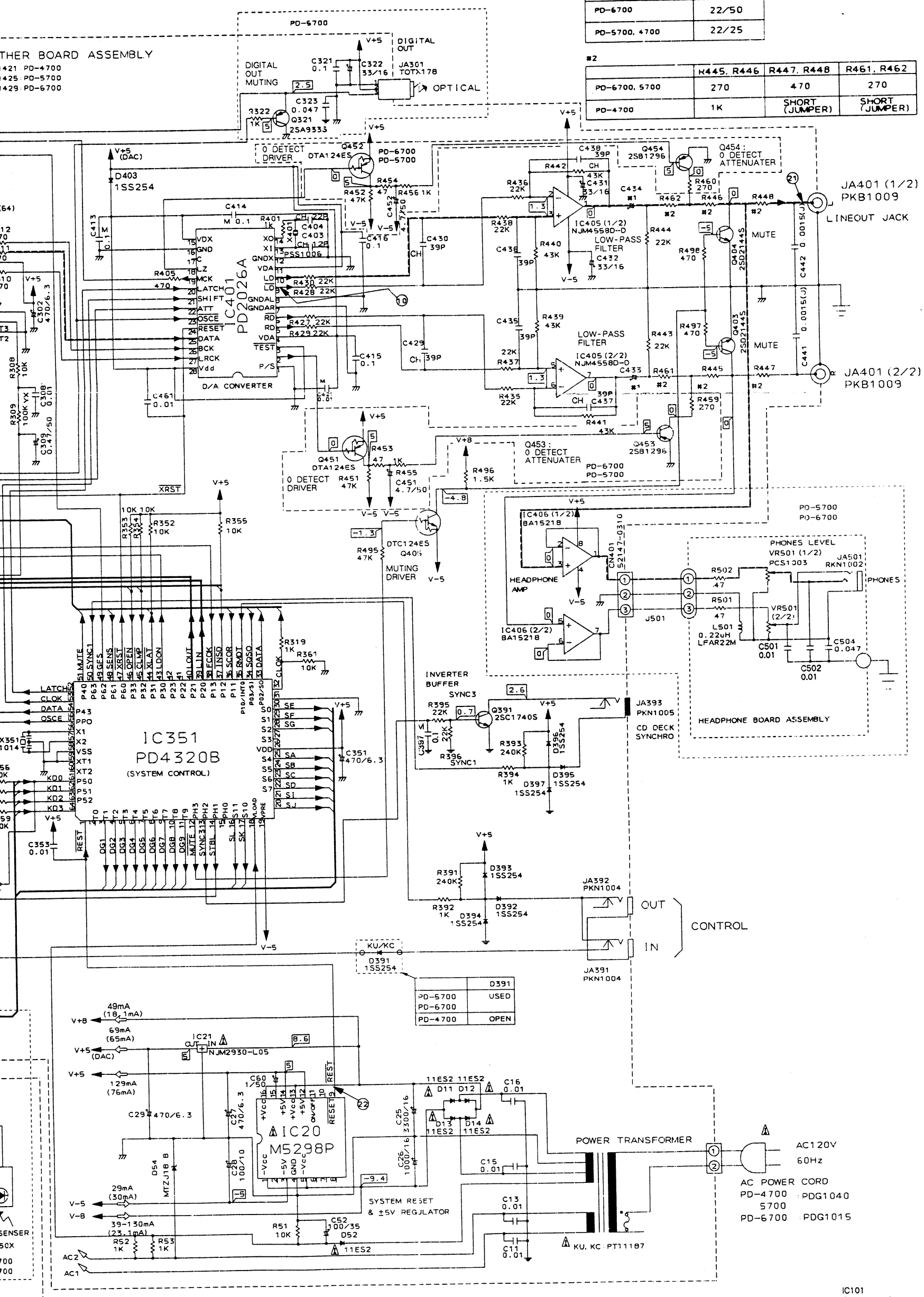
(4) YX Ceramic CGCYX

(5) Unmarked type CKCYF

OTHERS

⏚ CHASSIS GROUND

$\overline{ABC}$ LOW ACTIVE SIGNAL




#1

| | C433, C434 |
|---|---|
| PD-6700 | 22/50 |
| PD-5700, 4700 | 22/25 |

#2

| | R445, R446 | R447, R448 | R461, R462 |
|---|---|---|---|
| PD-6700, 5700 | 270 | 470 | 270 |
| PD-4700 | 1K | SHORT (JUMPER) | SHORT (JUMPER) |

| | PD-4700 | PD-5700, 6700 |
|---|---|---|
| CN351 | 9602S-28C | 9602S-30C |
| CN701 | 9602S-28F | 9602S-30F |

IC151 (CXA1372S)

| Pin No. | Voltage | Pin No. | Voltage |
|---|---|---|---|
| 1 | 0 | 25 | -5 |
| 2 | 0 | 26 | 5 |
| 3 | 0 | 27 | 5 |
| 4 | 0 | 28 | 5 |
| 5 | 0 | 29 | 5 |
| 6 | 0 | 30 | 5 |
| 7 | 0 | 31 | 5 |
| 8 | 0 | 32 | 0 |
| 9 | 0 | 33 | 5 |
| 10 | 0 | 34 | 0 |
| 11 | 1 | 35 | 0 |
| 12 | 0 | 36 | N. C. |
| 13 | 0.2 | 37 | 2.5 |
| 14 | 0 | 38 | 2.5 |
| 15 | 0 | 39 | 5 |
| 16 | 5 | 40 | -1.5 |
| 17 | 0 | 41 | -1.7 |
| 18 | 0 | 42 | 5 |
| 19 | 0 | 43 | -0.7 |
| 20 | 0.2-0.8 | 44 | -1.6 |
| 21 | 0 | 45 | 0 |
| 22 | -4 | 46 | 0.8 |
| 23 | 1.3 | 47 | -5 |
| 24 | 0 | 48 | 0 |

IC301 (CXD2500AQ)

| Pin No. | Voltage | Pin No. | Voltage |
|---|---|---|---|
| 1 | 5 | 42 | 5 |
| 2 | N. C. | 43 | N. C. |
| 3 | 5 | 44 | N. C. |
| 4 | 2.6 | 45 | N. C. |
| 5 | N. C. | 46 | 4.4 |
| 6 | 5 | 47 | 0 |
| 7 | N. C. | 48 | 0 |
| 8 | N. C. | 49 | 0-0.3 |
| 9 | 0 | 50 | N. C. |
| 10 | 0 | 51 | N. C. |
| 11 | N. C. | 52 | 0 |
| 12 | 0 | 53 | 2.5 |
| 13 | N. C. | 54 | N. C. |
| 14 | N. C. | 55 | 0 |
| 15 | N. C. | 56 | N. C. |
| 16 | N. C. | 57 | N. C. |
| 17 | 0 | 58 | N. C. |
| 18 | 2.5 | 59 | 5:PD-6700 |
| 19 | 2.4 | | 0:Others |
| 20 | 2.4 | 60 | 0:PD-6700 |
| 21 | 0 | | N. C. :Others |
| 22 | 2.5 | 61 | N. C. |
| 23 | 5 | 62 | N. C. |
| 24 | 2.5 | 63 | N. C. |
| 25 | N. C. | 64 | N. C. |
| 26 | 0 | 65 | 0 |
| 27 | 2.5 | 66 | 3.3-4.6 |
| 28 | N. C. | 67 | 5 |
| 29 | 0 | 68 | 0 |
| 30 | N. C. | 69 | 2.1-3 |
| 31 | 1.3-2.2 | 70 | 5 |
| 32 | 2.5 | 71 | 5 |
| 33 | 5 | 72 | 5 |
| 34 | 2.5 | 73 | 5 |
| 35 | N. C. | 74 | 5 |
| 36 | N. C. | 75 | 5 |
| 37 | N. C. | 76 | 0 |
| 38 | N. C. | 77 | 5 |
| 39 | N. C. | 78 | 5 |
| 40 | N. C. | 79 | 5 |
| 41 | N. C. | 80 | 0 |

IC351 (PD4320B)

| Pin No. | Voltage | Pin No. | Voltage |
|---|---|---|---|
| 1 | 5 | 33 | 5 |
| 2 | N. C. | 34 | 3.3-4.7 |
| 3 | -24- -24.3 | 35 | 5 |
| 4 | -24- -24.3 | 36 | 0 |
| 5 | -24- -24.3 | 37 | 5 |
| 6 | -24- -24.3 | 38 | 5 |
| 7 | -24- -24.3 | 39 | 0 |
| 8 | -24- -24.3 | 40 | 0 |
| 9 | -24- -24.3 | 41 | N. C. |
| 10 | -24- -24.3 | 42 | N. C. |
| 11 | -24- -24.3 | 43 | 5 |
| 12 | 5 | 44 | 5 |
| 13 | 5 | 45 | 0 |
| 14 | 0 | 46 | 5 |
| 15 | N. C. | 47 | 5 |
| 16 | -23.8 | 48 | 2.1-3 |
| 17 | -9.1 - -9.3 | 49 | 5 |
| 18 | -26 | 50 | 5 |
| 19 | -5 | 51 | 0 |
| 20 | 1.2 | 52 | 5 |
| 21 | 1.1 | 53 | 5 |
| 22 | -9- -12 | 54 | 0 |
| 23 | 0.2-0.8 | 55 | 5 |
| 24 | 0.6-1.1 | 56 | 2.5 |
| 25 | 0 | 57 | 2.5 |
| 26 | N. C. | 58 | 0 |
| 27 | 0.2-0.4 | 59 | 0 |
| 28 | -2- -3.3 | 60 | N. C. |
| 29 | -14- -17 | 61 | 0 |
| 30 | -11.5- -17.3 | 62 | 0 |
| 31 | 0 | 63 | 0 |
| 32 | 5 | 64 | 0 |

IC101 (CXA1471S)

| Pin No. | Voltage | Pin No. | Voltage |
|---|---|---|---|
| 1 | N. C. | 12 | N. C. |
| 2 | 2.9 | 13 | -0.9 |
| 3 | -4.7 | 14 | -0.7 |
| 4 | 0 | 15 | 0 |
| 5 | 0 | 16 | 0 |
| 6 | -5 | 17 | 0 |
| 7 | 0 | 18 | 0.8 |
| 8 | 0 | 19 | 0 |
| 9 | N. C. | 20 | 5 |
| 10 | 0 | 21 | 5 |
| 11 | N. C. | 22 | N. C. |

IC401 (PD2026A)

| Pin No. | Voltage | Pin No. | Voltage |
|---|---|---|---|
| 1 | 0 | 15 | 5 |
| 2 | 0 | 16 | 0 |
| 3 | 5 | 17 | N. C. |
| 4 | 5 | 18 | 0 |
| 5 | 2.4 | 19 | 2 |
| 6 | 2.6 | 20 | 5 |
| 7 | 0 | 21 | 5 |
| 8 | 0 | 22 | 5 |
| 9 | 2.6 | 23 | 5 |
| 10 | 2.4 | 24 | 5 |
| 11 | 5 | 25 | 2.4 |
| 12 | 0 | 26 | 2.4 |
| 13 | 2.4 | 27 | 2.4 |
| 14 | 2.4 | 28 | 5 |

# 7. P.C.BOARDS CONNECTION DIAGRAM

| | D391 |
|---|---|
| PD-6700, PD-5700 | USED |
| PD-4700 | OPEN |

MOTHER BOARD ASSSEMBLY
(PD-6700 : PWM1429)
(PD-5700 : PWM1425)
(PD-4700 : PWM1421)

*1: PD-6700,PD-5700 TYPES

*2

| | R447,R448 R461,R462 |
|---|---|
| PD-6700, PD-5700 | USED |
| PD-4700 | SHORT (JUMPER) |

IC301 (CXD2500AQ)

| Pin No. | Voltage | Pin No. | Voltage |
|---|---|---|---|
| 1 | 5 | 42 | 5 |
| 2 | N. C. | 43 | N. C. |
| 3 | 5 | 44 | N. C. |
| 4 | 2.6 | 45 | N. C. |
| 5 | N. C. | 46 | 4.4 |
| 6 | 5 | 47 | 0 |
| 7 | N. C. | 48 | 0 |
| 8 | N. C. | 49 | 0-0.3 |
| 9 | 0 | 50 | N. C. |
| 10 | 0 | 51 | N. C. |
| 11 | N. C. | 52 | 0 |
| 12 | 0 | 53 | 2.5 |
| 13 | N. C. | 54 | N. C. |
| 14 | N. C. | 55 | 0 |
| 15 | N. C. | 56 | N. C. |
| 16 | N. C. | 57 | N. C. |
| 17 | 0 | 58 | N. C. |
| 18 | 2.5 | 59 | 5:PD-6700 |
| 19 | 2.4 | | 0:Others |
| 20 | 2.4 | 60 | 0:PD-6700 |
| 21 | 0 | | N. C. :Others |
| 22 | 2.5 | 61 | N. C. |
| 23 | 5 | 62 | N. C. |
| 24 | 2.5 | 63 | N. C. |
| 25 | N. C. | 64 | N. C. |
| 26 | 0 | 65 | 0 |
| 27 | 2.5 | 66 | 3.3-4.6 |
| 28 | N. C. | 67 | 5 |
| 29 | 0 | 68 | 0 |
| 30 | N. C. | 69 | 2.1-3 |
| 31 | 1.3-2.2 | 70 | 5 |
| 32 | 2.5 | 71 | 5 |
| 33 | 5 | 72 | 5 |
| 34 | 2.5 | 73 | 5 |
| 35 | N. C. | 74 | 5 |
| 36 | N. C. | 75 | 5 |
| 37 | N. C. | 76 | 0 |
| 38 | N. C. | 77 | 5 |
| 39 | N. C. | 78 | 5 |
| 40 | N. C. | 79 | 5 |
| 41 | N. C. | 80 | 0 |

IC351 (PD4320B)

| Pin No. | Voltage | Pin No. | Voltage |
|---|---|---|---|
| 1 | 5 | 33 | 5 |
| 2 | N. C. | 34 | 3.3-4.7 |
| 3 | -24- -24.3 | 35 | 5 |
| 4 | -24- -24.3 | 36 | 0 |
| 5 | -24- -24.3 | 37 | 5 |
| 6 | -24- -24.3 | 38 | 5 |
| 7 | -24- -24.3 | 39 | 0 |
| 8 | -24- -24.3 | 40 | 0 |
| 9 | -24- -24.3 | 41 | N. C. |
| 10 | -24- -24.3 | 42 | N. C. |
| 11 | -24- -24.3 | 43 | 5 |
| 12 | 5 | 44 | 5 |
| 13 | 5 | 45 | 0 |
| 14 | 0 | 46 | 5 |
| 15 | N. C. | 47 | 5 |
| 16 | -23.8 | 48 | 2.1-3 |
| 17 | -9.1 - -9.3 | 49 | 5 |
| 18 | -26 | 50 | 5 |
| 19 | -5 | 51 | 0 |
| 20 | 1.2 | 52 | 5 |
| 21 | 1.1 | 53 | 5 |
| 22 | -9- -12 | 54 | 0 |
| 23 | 0.2-0.8 | 55 | 5 |
| 24 | 0.6-1.1 | 56 | 2.5 |
| 25 | 0 | 57 | 2.5 |
| 26 | N. C. | 58 | 0 |
| 27 | 0.2-0.4 | 59 | 0 |
| 28 | -2- -3.3 | 60 | N. C. |
| 29 | -14- -17 | 61 | 0 |
| 30 | -11.5- -17.3 | 62 | 0 |
| 31 | 0 | 63 | 0 |
| 32 | 5 | 64 | 0 |

SERVO MECHANISM ASSEMBLY

PICKUP ASSEMBLY PEA1030

FOCUS COIL
TRACKING COIL
PCP1008
VR1 LD POWER 3.3K
C1001 CKSYF105Z16 1/16
LMD LD

CN101

SINGLE MECHANISM ASSEMBLY

INSIDE SW DSG1014
SPINDLE MOTOR ASSEMBLY PEA1028
CARRIAGE MOTOR PXM1013

CN202

CLAMP SW OSK1003
PXM1010 LOADING MOTOR

CN203

AC 120V 60Hz
NEUTRAL LIVE
POWER TRANSFORMER
CMKS-54XT

PRIMARY

Q391
Q404
Q403
Q453
IC406
Q454
Q405
Q452
IC405
Q451
IC20
Q101
IC21
IC401
VR102
IC101
VR103
VR151
IC202
TP1
VR152
IC301
TP2
IC151
Q321
IC351
IC201

CONTROL OUT IN
CD DECK SYNCHRO
LINE OUT
PD-6700 TYPE OPTICAL DIGITAL OUT

PWM 1421

PD-6700 TYPE

PD-5700, PD-4700 TYPES

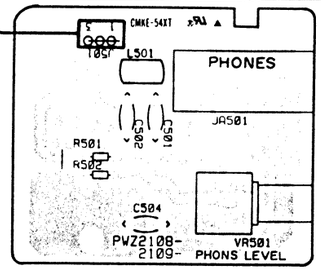
PD-[illegible] TYPE

PD-6[illegible] TYPE

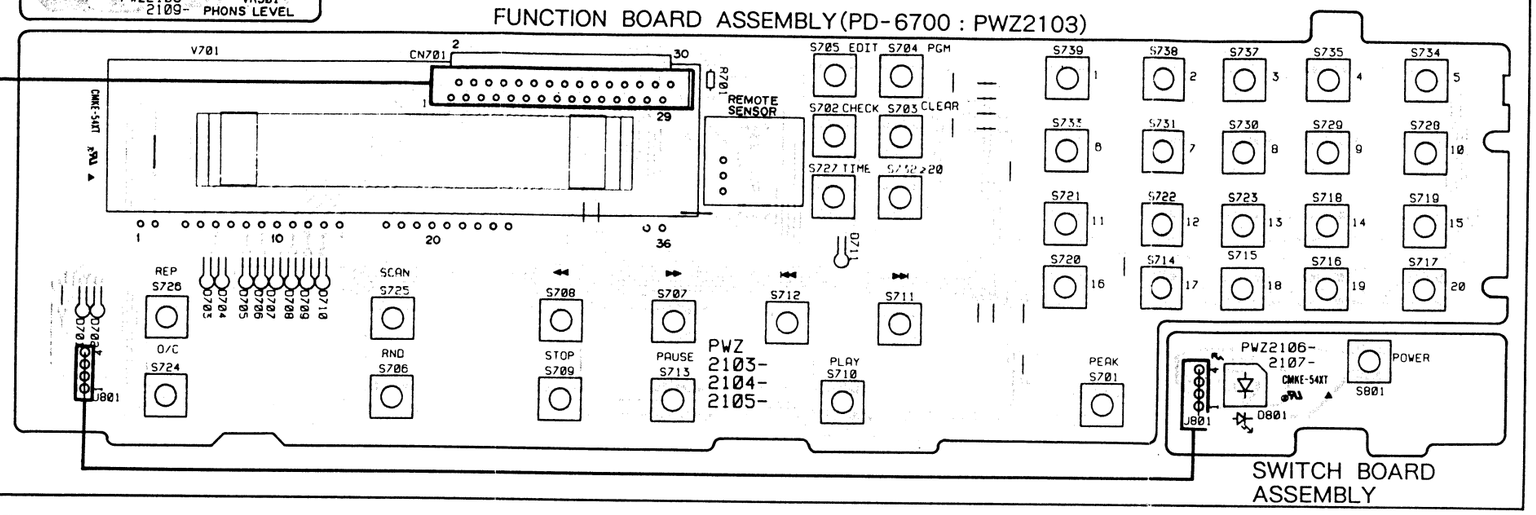
DIP

● PD-6700 TYPE

HEADPHONE BOARD ASSEMBLY




FUNCTION BOARD ASSEMBLY (PD-6700 : PWZ2103)

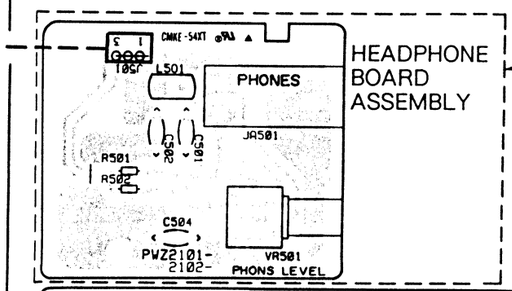



SWITCH BOARD ASSEMBLY

● PD-5700 AND PD-4700 TYPES

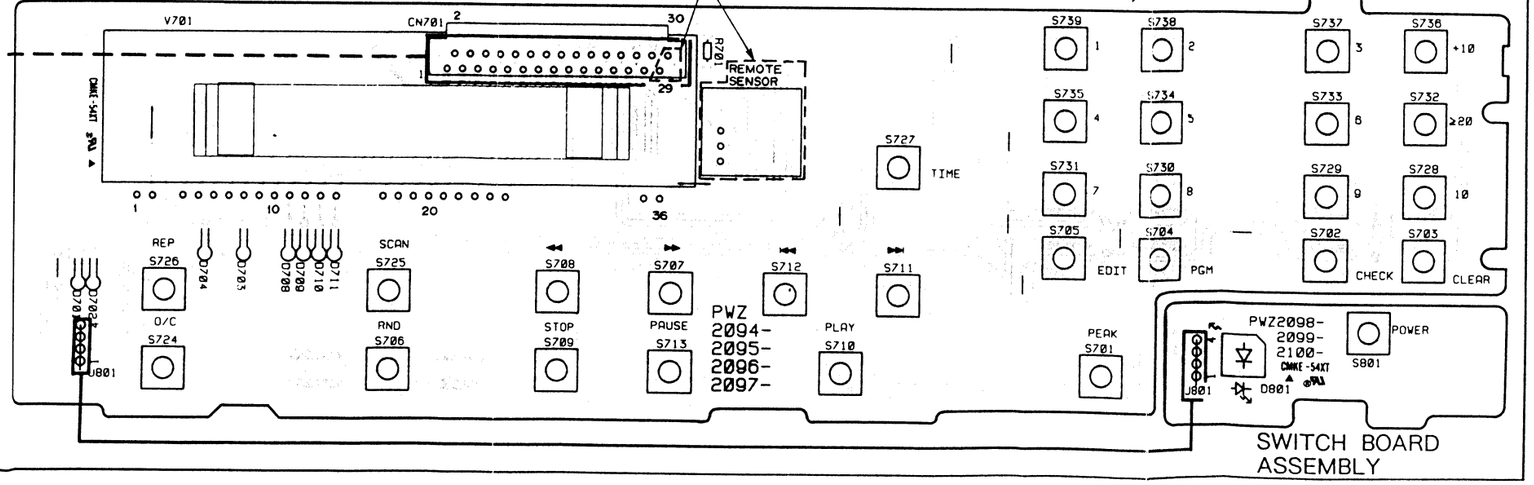
HEADPHONE BOARD ASSEMBLY

PD-5700 TYPE




PD-5700 TYPE

FUNCTION BOARD ASSEMBLY
(PD-5700 : PWZ2096)
(PD-4700 : PWZ2094)

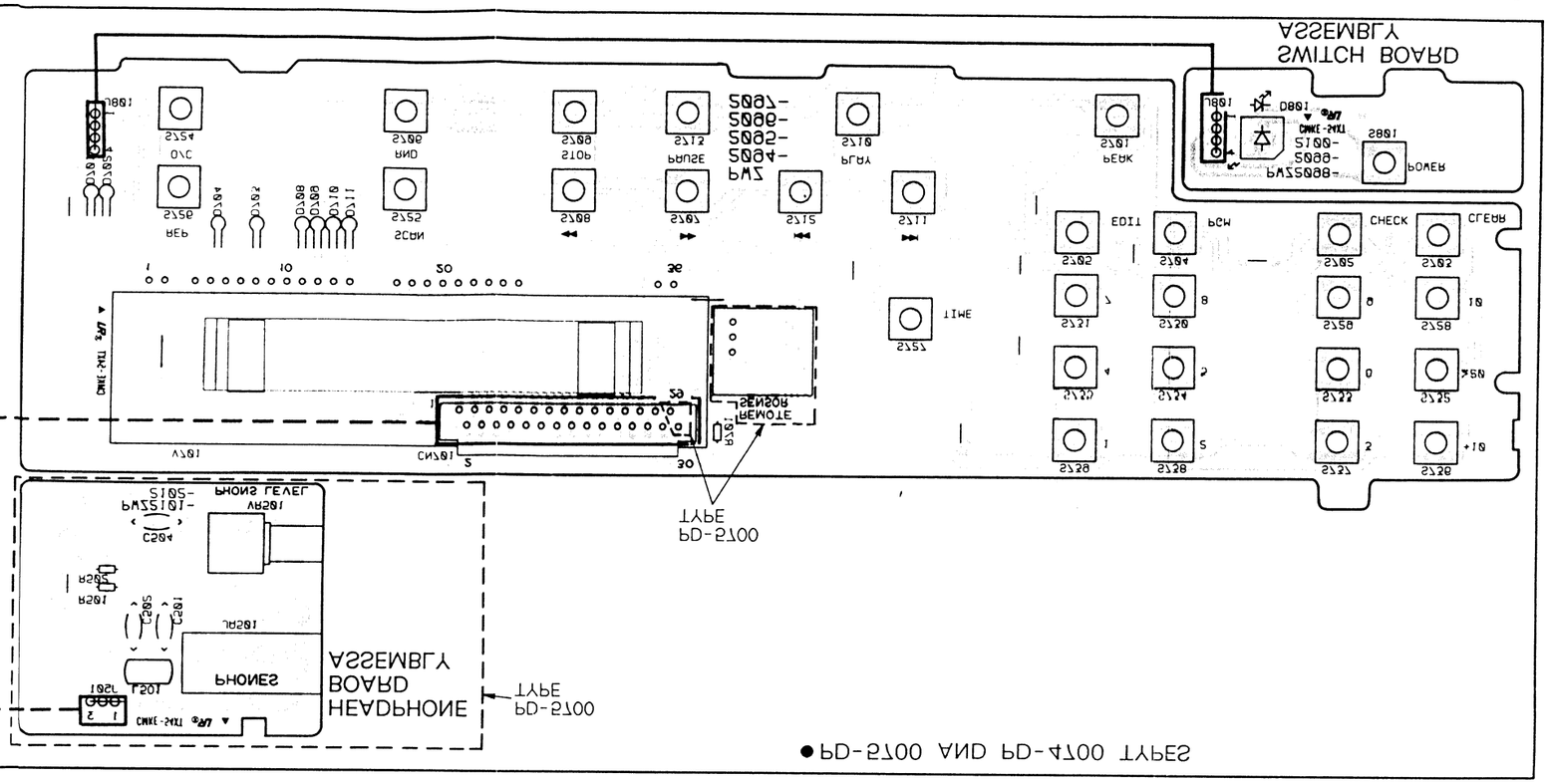


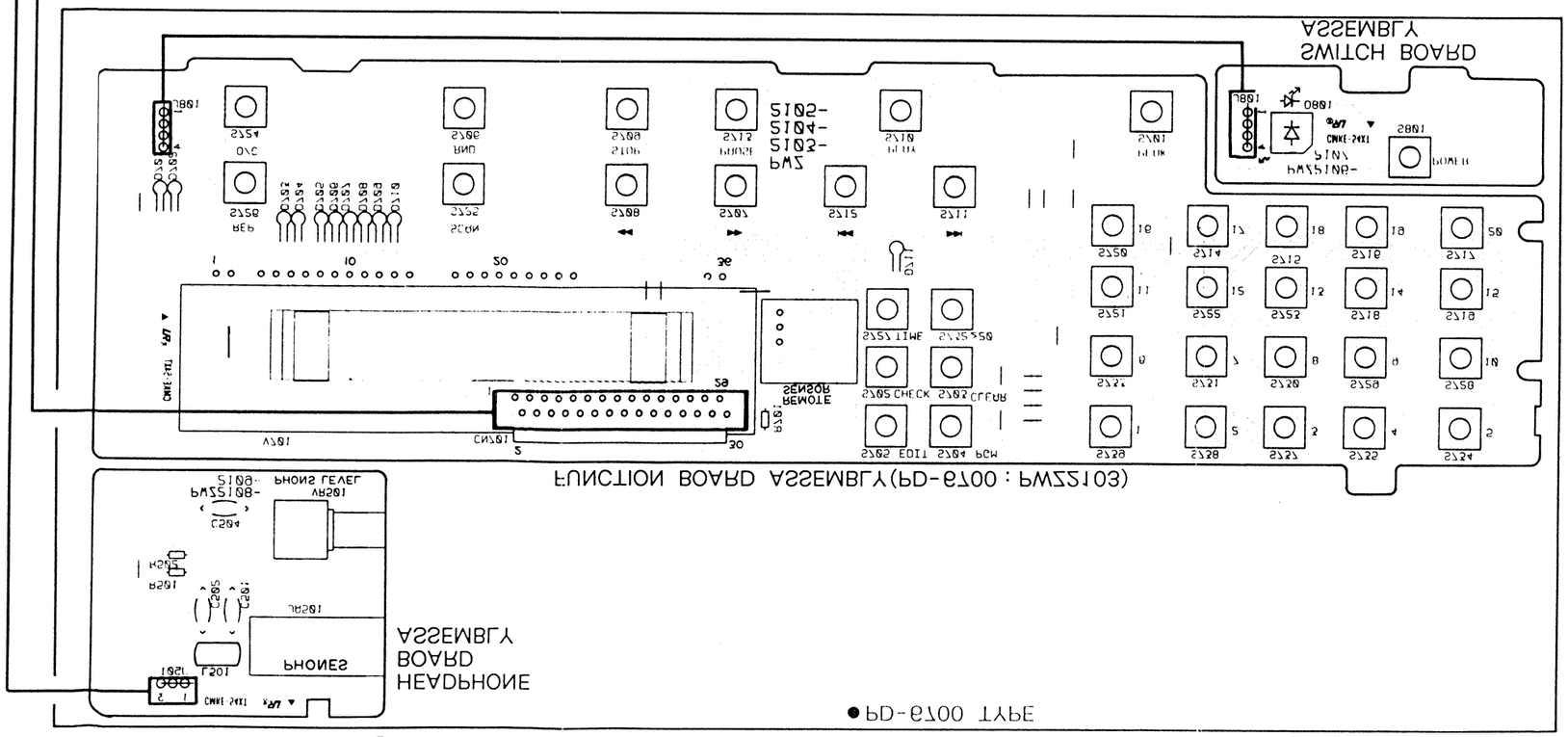

SWITCH BOARD ASSEMBLY

| P.C.B. pattern diagram indication | Corresponding part symbol | Part name | P.C.B. pattern diagram indication | Corresponding part symbol | Part name |
|---|---|---|---|---|---|
| | | Transistor | | | Ceramic capacitor |
| | | FET | | | Mylar capacitor |
| | | Diode | | | Styrol capacitor |
| | | | | | Electrolytic capacitor (Non polarized) |
| | | | | | Electrolytic capacitor (Noiseless) |
| | | Zenner diode | | | Electrolytic capacitor (Polarized) |
| | | | | | Electrolytic capacitor (Polarized) |
| | | LED | | | Power capacitor |
| | | Varactor | | | Semi-fixed resistor |
| | | Tact switch | | | Resistor array |
| | | | | | Resistor |
| | | Inductor | | | |
| | | Coil | | | Resonator |
| | | Transformer | | | Thermistor |
| | | Filter | | | |

1. This P.C.B. connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the above Table.
3. The capacitor terminal marked with ▭ shows negative terminal.
4. The diode marked with O shows cathode side.
5. The transistor terminal marked with ▭ shows emitter.

This P. C. B. connection diagram is viewed from the foil side.



# 7. P.C.BOARDS CONNECTION DIAGRAM

MOTHER BOARD ASSSEMBLY
(PD-6700 : PWM1429)
(PD-5700 : PWM1425)
(PD-4700 : PWM1421)

*1: PD-6700,PD-5700 TYPES

*2

| | R447,R448 R461,R462 |
|---|---|
| PD-6700, PD-5700 | USED |
| PD-4700 | SHORT (JUMPER) |

| | D391 |
|---|---|
| PC-6700, PC-5700 | USED |
| PC-4700 | OPEN |

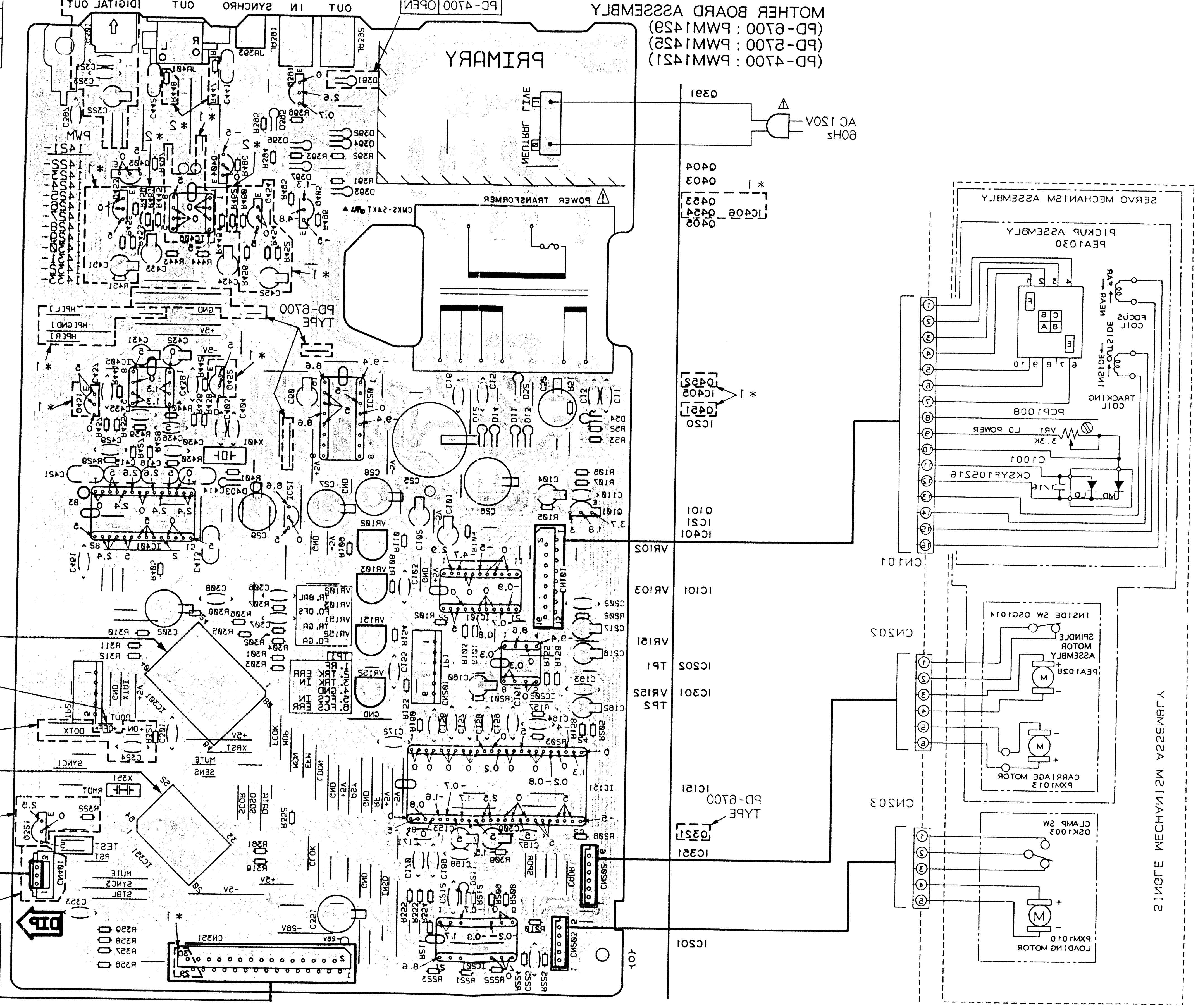
| | CN351,CN701 |
|---|---|
| PD-6700, PD-5700 | 30PIN |
| PD-4700 | 28PIN |

IC351 (PD4320B)

| Pin No. | Voltage | Pin No. | Voltage |
|---|---|---|---|
| 1 | 5 | 33 | 5 |
| 2 | N.C. | 34 | 3.3-4.7 |
| 3 | -24--24.3 | 35 | 5 |
| 4 | -24--24.3 | 36 | 0 |
| 5 | -24--24.3 | 37 | 5 |
| 6 | -24--24.3 | 38 | 5 |
| 7 | -24--24.3 | 39 | 0 |
| 8 | -24--24.3 | 40 | 0 |
| 9 | -24--24.3 | 41 | N.C. |
| 10 | -24--24.3 | 42 | N.C. |
| 11 | -24--24.3 | 43 | 5 |
| 12 | 5 | 44 | 5 |
| 13 | 5 | 45 | 0 |
| 14 | 0 | 46 | 5 |
| 15 | N.C. | 47 | 5 |
| 16 | -23.8 | 48 | 2.1-3 |
| 17 | -9.1--9.3 | 49 | 5 |
| 18 | -26 | 50 | 5 |
| 19 | -5 | 51 | 0 |
| 20 | 1.2 | 52 | 5 |
| 21 | 1.1 | 53 | 5 |
| 22 | -9--12 | 54 | 0 |
| 23 | 0.2-0.8 | 55 | 5 |
| 24 | 0.6-1.1 | 56 | 2.5 |
| 25 | 0 | 57 | 2.5 |
| 26 | N.C. | 58 | 0 |
| 27 | 0.2-0.4 | 59 | 0 |
| 28 | -2--3.3 | 60 | N.C. |
| 29 | -14--17 | 61 | 0 |
| 30 | -11.5--17.3 | 62 | 0 |
| 31 | 0 | 63 | 0 |
| 32 | 5 | 64 | 0 |

IC301 (CXD2500AQ)

| Pin No. | Voltage | Pin No. | Voltage |
|---|---|---|---|
| 1 | 5 | 42 | 5 |
| 2 | N.C. | 43 | N.C. |
| 3 | 5 | 44 | N.C. |
| 4 | 2.6 | 45 | N.C. |
| 5 | N.C. | 46 | 4.4 |
| 6 | 5 | 47 | 0 |
| 7 | N.C. | 48 | 0 |
| 8 | N.C. | 49 | 0-0.3 |
| 9 | 0 | 50 | N.C. |
| 10 | 0 | 51 | N.C. |
| 11 | N.C. | 52 | 0 |
| 12 | 0 | 53 | 2.5 |
| 13 | N.C. | 54 | N.C. |
| 14 | N.C. | 55 | 0 |
| 15 | N.C. | 56 | N.C. |
| 16 | N.C. | 57 | N.C. |
| 17 | 0 | 58 | N.C. |
| 18 | 2.5 | 59 | 5:PD-6700 |
| 19 | 2.4 | | 0:Others |
| 20 | 2.4 | 60 | 0:PD-6700 |
| 21 | 0 | | N.C.:Others |
| 22 | 2.5 | 61 | N.C. |
| 23 | 5 | 62 | N.C. |
| 24 | 2.5 | 63 | N.C. |
| 25 | N.C. | 64 | N.C. |
| 26 | 0 | 65 | 0 |
| 27 | 2.5 | 66 | 3.3-4.6 |
| 28 | N.C. | 67 | 5 |
| 29 | 0 | 68 | 0 |
| 30 | N.C. | 69 | 2.1-3 |
| 31 | 1.3-2.2 | 70 | 5 |
| 32 | 2.5 | 71 | 5 |
| 33 | 5 | 72 | 5 |
| 34 | 2.5 | 73 | 5 |
| 35 | N.C. | 74 | 5 |
| 36 | N.C. | 75 | 5 |
| 37 | N.C. | 76 | 0 |
| 38 | N.C. | 77 | 5 |
| 39 | N.C. | 78 | 5 |
| 40 | N.C. | 79 | 5 |
| 41 | N.C. | 80 | 0 |



# 8. P. C. B's PARTS LIST

*NOTES:*

- *Parts without part number cannot be supplied.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

*Ex.1 When there are 2 effective digits(any digit apart from 0), such as 560 ohm and 47k ohm(tolerance is shown by J=5%, and K=10%).*

*560 Ω → 56 × 10¹ → 561 ..... RD1/4PS 5 6 1 J*
*47k Ω → 47 × 10³ → 473 ..... RD1/4PS 4 7 3 J*
*0.5 Ω → 0R5 ..... RN2H 0 R 5 K*
*1 Ω → 010 ..... RS1P 0 1 0 K*

*Ex.2 When there are 3 effective digits(such as in high precision metal film resistors).*

*5.62k Ω → 562 × 10¹ → 5621 ..... RN1/4SR 5 6 2 1 F*

| Mark | No. | Description | Part No. |
|---|---|---|---|
| **Switch Board Assembly** | | | |
| **SEMICONDUCTOR** | | | |
| | D801 | LED | PCX1019 |
| **SWITCH** | | | |
| | S801 | SWITCH ( POWER ) | PSG1006 |
| **Headphone Board Assembly (PD-6700 and PD-5700 types)** | | | |
| **COIL** | | | |
| | L501 | | LFAR22M |
| **CAPACITORS** | | | |
| | C501, 502 | CERAMIC CAPACITOR | CKCYF103Z50 |
| | C504 | CERAMIC CAPACITOR | CKCYF473Z50 |
| **RESISTORS** | | | |
| | VR501 | VARIABLE RESISTOR ( PHONES LEVEL ) | PCS1003 |
| | R501, 502 | CARBON FILM RESISTOR | RD1/6PM470J |
| **OTHERS** | | | |
| | JA501 | JACK ( PHONES ) | RKN1002 |
| **◉Mother Board Assembly ( PWM1429:PD-6700 )** | | | |
| **SEMICONDUCTORS** | | | |
| | IC101 | PRE AMP IC | CXA1471S |
| | IC151 | SERVO IC | CXA1372S |
| ⚠ | IC20 | REGULATOR IC | M5298P |
| ⚠ | IC201 | POWER OP-AMP, IC | LA6520 |
| ⚠ | IC202 | POWER OP-AMP, IC | LA6517 |
| | IC21 | REGULATOR, IC | NJM2930-L05 |
| | IC301 | EFM DEMODULATION IC | CXD2500AQ |
| | IC351 | MICROCOMPUTER, IC | PD4320B |
| | IC401 | D/A CONVERTER, IC | PD2026A |
| | IC405 | OP-AMP IC | NJM4558D-D |
| | IC406 | OP-AMP IC | BA15218 |
| | Q101 | TRANSISTOR | 2SA854S |
| | Q321 | TRANSISTOR | 2SA933S |
| | Q391 | TRANSISTOR | 2SC1740S |
| | Q403, 404 | TRANSISTOR | 2SD2144S |
| | Q405 | TRANSISTOR | DTC124ES |
| | Q451, 452 | TRANSISTOR | DTA124ES |
| | Q453, 454 | TRANSISTOR | 2SB1296 |
| ⚠ | D11-14 | DIODE | 11ES2 |
| | D211 | ZENNER DIODE | MTZJ6.2B |
| | D391-397 | DIODE | 1SS254 |
| | D403 | DIODE | 1SS254 |
| ⚠ | D52 | DIODE | 11ES2 |
| | D54 | ZENNER DIODE | MTZJ18B |
| **CAPACITORS** | | | |
| | C101, 102 | ELECTR. CAPACITOR | CEAS101M10 |
| | C103 | CERAMIC CAPACITOR | CCCCH200J50 |
| | C104 | ELECTR. CAPACITOR | CEAS101M10 |
| | C11, 110 | CERAMIC CAPACITOR | CKCYF103Z50 |
| | C13, 15 | CERAMIC CAPACITOR | CKCYF103Z50 |
| | C153 | ELECTR. CAPACITOR | CEAS101M10 |
| | C155 | CERAMIC CAPACITOR | CKCYB182K50 |
| | C156 | CERAMIC CAPACITOR | CGCYX333K25 |
| | C157 | CERAMIC CAPACITOR | CGCYX103K25 |
| | C158, 159 | CERAMIC CAPACITOR | CGCYX104K25 |
| | C16 | CERAMIC CAPACITOR | CKCYF103Z50 |
| | C160 | ELECTR. CAPACITOR | CEAS4R7M50 |
| | C161 | CERAMIC CAPACITOR | CGCYX104K25 |
| | C162 | ELECTR. CAPACITOR | CEAS010M50 |
| | C163 | CERAMIC CAPACITOR | CGCYX104K25 |
| | C164 | CERAMIC CAPACITOR | CGCYX103K25 |
| | C167 | CERAMIC CAPACITOR | CKCYF103Z50 |
| | C168 | CERAMIC CAPACITOR | CGCYX333K25 |
| | C169 | CERAMIC CAPACITOR | CGCYX103K25 |
| | C170 | CERAMIC CAPACITOR | CKCYB332K50 |
| | C171, 172 | CERAMIC CAPACITOR | CKCYB472K50 |
| | C202 | CERAMIC CAPACITOR | CKCYF103Z50 |
| | C212 | CERAMIC CAPACITOR | CGCYX103K25 |
| | C216, 217 | ELECTR. CAPACITOR | CEAS330M16 |
| | C225 | CERAMIC CAPACITOR | CGCYX104K25 |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | C25 | ELECTR. CAPACITOR | CEAS332M16 |
| | C26 | ELECTR. CAPACITOR | CEAS102M16 |
| | C27 | ELECTROLYTIC CAPACIT | CEAS471M6R3 |
| | C28 | ELECTR. CAPACITOR | CEAS101M10 |
| | C29 | ELECTROLYTIC CAPACIT | CEAS471M6R3 |
| | C301 | CERAMIC CAPACITOR | CGCYX104K25 |
| | C302 | ELECTROLYTIC CAPACIT | CEAS471M6R3 |
| | C306 | CERAMIC CAPACITOR | CKCYB152K50 |
| | C307 | CERAMIC CAPACITOR | CGCYX473K25 |
| | C308 | CERAMIC CAPACITOR | CGCYX103K25 |
| | C309 | ELECTR. CAPACITOR | CEASR47M50 |
| | C321 | CERAMIC CAPACITOR | CGCYX104K25 |
| | C322 | ELECTR. CAPACITOR | CEAS330M16 |
| | C323 | CERAMIC CAPACITOR | CKCYF473Z50 |
| | C324 | CERAMIC CAPACITOR | CCCCH100D50 |
| | C351 | ELECTROLYTIC CAPACIT | CEAS471M6R3 |
| | C353 | CERAMIC CAPACITOR | CKCYF103Z50 |
| | C397 | MYLOR FILM CAPACITOR | CQMA104K50 |
| | C403 | CERAMIC CAPACITOR | CCCCH120J50 |
| | C404 | CERAMIC CAPACITOR | CCCCH220J50 |
| | C413, 414 | MYLOR FILM CAPACITOR | CQMA104K50 |
| | C415, 416 | AUDIO FILM CAPACITOR | CFTXA104J50 |
| | C421 | MYLOR FILM CAPACITOR | CQMA103K50 |
| | C429, 430 | CERAMIC CAPACITOR | CCCCH390J50 |
| | C431, 432 | ELECTR. CAPACITOR | CEAS330M16 |
| | C433, 434 | ELECTR. CAPACITOR | CEAS220M50 |
| | C435-438 | CERAMIC CAPACITOR | CCCCH390J50 |
| | C441, 442 | PL. STYRENE CAPACITOR | CQSA152J50 |
| | C451, 452 | ELECTR. CAPACITOR | CEAS4R7M50 |
| | C461 | CERAMIC CAPACITOR | CKCYF103Z50 |
| | C52 | ELECTR. CAPACITOR | CEAS101M35 |
| | C60 | ELECTR. CAPACITOR | CEAS010M50 |

## RESISTORS

| | | |
|---|---|---|
| VR102 | VR ( 22kΩ ) | RCP1046 |
| VR103 | VR ( 1kΩ ) | RCP1044 |
| VR151, 152 | VR ( 22kΩ ) | RCP1046 |
| Other resistors | | RD1/6PM□□□J |

## OTHERS

| | | |
|---|---|---|
| CN101 | CONNECTOR | 52045-1610 |
| CN351 | CONNECTOR | 9602S-30C |
| JA301 | OPTICAL OUTPUT JACK | TOTX178 |
| JA391, 392 | JACK/12V ( CONTROL IN, OUT ) | PKN1004 |
| JA393 | JACK ( CD DECK SYNCHRO ) | PKN1005 |
| JA401 | JACK ( LINE OUT L, R ) | PKB1009 |
| X351 | CERAMIC RESONATOR ( 4.19MHz ) | VSS1014 |
| X401 | XTAL RES ( OSC ) ( 16.9344MHz ) | PSS1006 |

| Mark | No. | Description | Part No. |
|---|---|---|---|

## ◉ Mother Board Assembly ( PWM1425:PD-5700 )

### SEMICONDUCTORS

| | | | |
|---|---|---|---|
| | IC101 | PRE AMP IC | CXA1471S |
| | IC151 | SERVO IC | CXA1372S |
| ⚠ | IC20 | REGULATOR IC | M5298P |
| ⚠ | IC201 | POWER OP-AMP, IC | LA6520 |
| ⚠ | IC202 | POWER OP-AMP, IC | LA6517 |
| | IC21 | REGULATOR, IC | NJM2930-L05 |
| | IC301 | EFM DEMODULATION IC | CXD2500AQ |
| | IC351 | MICROCOMPUTER, IC | PD4320B |
| | IC401 | D/A CONVERTER, IC | PD2026A |
| | IC405 | OP-AMP IC | NJM4558D-D |
| | IC406 | OP-AMP IC | BA15218 |
| | Q101 | TRANSISTOR | 2SA854S |
| | Q391 | TRANSISTOR | 2SC1740S |
| | Q403, 404 | TRANSISTOR | 2SD2144S |
| | Q405 | TRANSISTOR | DTC124ES |
| | Q451, 452 | TRANSISTOR | DTA124ES |
| | Q453, 454 | TRANSISTOR | 2SB1296 |
| ⚠ | D11-14 | DIODE | 11ES2 |
| | D211 | ZENNER DIODE | MTZJ6.2B |
| | D391-397 | DIODE | 1SS254 |
| | D403 | DIODE | 1SS254 |
| ⚠ | D52 | DIODE | 11ES2 |
| | D54 | ZENNER DIODE | MTZJ18B |

### CAPACITORS

| | | |
|---|---|---|
| C101, 102 | ELECTR. CAPACITOR | CEAS101M10 |
| C103 | CERAMIC CAPACITOR | CCCCH200J50 |
| C104 | ELECTR. CAPACITOR | CEAS101M10 |
| C11, 110 | CERAMIC CAPACITOR | CKCYF103Z50 |
| C13, 15 | CERAMIC CAPACITOR | CKCYF103Z50 |
| C153 | ELECTR. CAPACITOR | CEAS101M10 |
| C155 | CERAMIC CAPACITOR | CKCYB182K50 |
| C156 | CERAMIC CAPACITOR | CGCYX333K25 |
| C157 | CERAMIC CAPACITOR | CGCYX103K25 |
| C158, 159 | CERAMIC CAPACITOR | CGCYX104K25 |
| C16 | CERAMIC CAPACITOR | CKCYF103Z50 |
| C160 | ELECTR. CAPACITOR | CEAS4R7M50 |
| C161 | CERAMIC CAPACITOR | CGCYX104K25 |
| C162 | ELECTR. CAPACITOR | CEAS010M50 |
| C163 | CERAMIC CAPACITOR | CGCYX104K25 |
| C164 | CERAMIC CAPACITOR | CGCYX103K25 |
| C167 | CERAMIC CAPACITOR | CKCYF103Z50 |
| C168 | CERAMIC CAPACITOR | CGCYX333K25 |
| C169 | CERAMIC CAPACITOR | CGCYX103K25 |
| C170 | CERAMIC CAPACITOR | CKCYB332K50 |
| C171, 172 | CERAMIC CAPACITOR | CKCYB472K50 |
| C202 | CERAMIC CAPACITOR | CKCYF103Z50 |
| C212 | CERAMIC CAPACITOR | CGCYX103K25 |
| C216, 217 | ELECTR. CAPACITOR | CEAS330M16 |
| C225 | CERAMIC CAPACITOR | CGCYX104K25 |
| C25 | ELECTR. CAPACITOR | CEAS332M16 |
| C26 | ELECTR. CAPACITOR | CEAS102M16 |
| C27 | ELECTROLYTIC CAPACIT | CEAS471M6R3 |
| C28 | ELECTR. CAPACITOR | CEAS101M10 |
| C29 | ELECTROLYTIC CAPACIT | CEAS471M6R3 |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| | C301 | CERAMIC CAPACITOR | CGCYX104K25 |
| | C302 | ELECTROLYTIC CAPACIT | CEAS471M6R3 |
| | C306 | CERAMIC CAPACITOR | CKCYB152K50 |
| | C307 | CERAMIC CAPACITOR | CGCYX473K25 |
| | C308 | CERAMIC CAPACITOR | CGCYX103K25 |
| | C309 | ELECTR. CAPACITOR | CEASR47M50 |
| | C351 | ELECTROLYTIC CAPACIT | CEAS471M6R3 |
| | C353 | CERAMIC CAPACITOR | CKCYF103Z50 |
| | C397 | MYLOR FILM CAPACITOR | CQMA104K50 |
| | C403 | CERAMIC CAPACITOR | CCCCH120J50 |
| | C404 | CERAMIC CAPACITOR | CCCCH220J50 |
| | C413-416 | MYLOR FILM CAPACITOR | CQMA104K50 |
| | C421 | MYLOR FILM CAPACITOR | CQMA103K50 |
| | C429, 430 | CERAMIC CAPACITOR | CCCCH390J50 |
| | C431, 432 | ELECTR. CAPACITOR | CEAS330M16 |
| | C433, 434 | ELECTR. CAPACITOR | CEAS220M25 |
| | C435-438 | CERAMIC CAPACITOR | CCCCH390J50 |
| | C441, 442 | MYLOR FILM CAPACITOR | CQMA152J50 |
| | C451, 452 | ELECTR. CAPACITOR | CEAS4R7M50 |
| | C461 | CERAMIC CAPACITOR | CKCYF103Z50 |
| | C52 | ELECTR. CAPACITOR | CEAS101M35 |
| | C60 | ELECTR. CAPACITOR | CEAS010M50 |

## RESISTORS

| | | |
|---|---|---|
| VR102 | VR ( 22kΩ ) | RCP1046 |
| VR103 | VR ( 1kΩ ) | RCP1044 |
| VR151, 152 | VR ( 22kΩ ) | RCP1046 |
| Other resistors | | RD1/6PM□□□J |

## OTHERS

| | | |
|---|---|---|
| CN101 | CONNECTOR | 52045-1610 |
| CN351 | CONNECTOR | 9602S-30C |
| JA391, 392 | JACK/12V ( CONTROL IN, OUT ) | PKN1004 |
| JA393 | JACK ( CD DECK SYNCHRO ) | PKN1005 |
| JA401 | JACK ( LINE OUT L, R ) | PKB1009 |
| X351 | CERAMIC RESONATOR ( 4. 19MHz ) | VSS1014 |
| X401 | XTAL RES ( OSC ) ( 16. 9344MHz ) | PSS1006 |

# ◉ Mother Board Assembly ( PWM1421:PD-4700 )

## SEMICONDUCTORS

| | | | |
|---|---|---|---|
| | IC101 | PRE AMP IC | CXA1471S |
| | IC151 | SERVO IC | CXA1372S |
| ⚠ | IC20 | REGULATOR IC | M5298P |
| ⚠ | IC201 | POWER OP-AMP, IC | LA6520 |
| ⚠ | IC202 | POWER OP-AMP, IC | LA6517 |
| | IC21 | REGULATOR, IC | NJM2930-L05 |
| | IC301 | EFM DEMODULATION IC | CXD2500AQ |
| | IC351 | MICROCOMPUTER, IC | PD4320B |
| | IC401 | D/A CONVERTER, IC | PD2026A |
| | IC405 | OP-AMP IC | NJM4558D-D |
| | Q101 | TRANSISTOR | 2SA854S |
| | Q391 | TRANSISTOR | 2SC1740S |
| | Q403, 404 | TRANSISTOR | 2SD2144S |
| | Q405 | TRANSISTOR | DTC124ES |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| ⚠ | D11-14 | DIODE | 11ES2 |
| | D211 | ZENNER DIODE | MTZJ6. 2B |
| | D392-397 | DIODE | 1SS254 |
| | D403 | DIODE | 1SS254 |
| ⚠ | D52 | DIODE | 11ES2 |
| | D54 | ZENNER DIODE | MTZJ18B |

## CAPACITORS

| | | |
|---|---|---|
| C101, 102 | ELECTR. CAPACITOR | CEAS101M10 |
| C103 | CERAMIC CAPACITOR | CCCCH200J50 |
| C104 | ELECTR. CAPACITOR | CEAS101M10 |
| C11, 110 | CERAMIC CAPACITOR | CKCYF103Z50 |
| C13, 15 | CERAMIC CAPACITOR | CKCYF103Z50 |
| C153 | ELECTR. CAPACITOR | CEAS101M10 |
| C155 | CERAMIC CAPACITOR | CKCYB182K50 |
| C156 | CERAMIC CAPACITOR | CGCYX333K25 |
| C157 | CERAMIC CAPACITOR | CGCYX103K25 |
| C158, 159 | CERAMIC CAPACITOR | CGCYX104K25 |
| C16 | CERAMIC CAPACITOR | CKCYF103Z50 |
| C160 | ELECTR. CAPACITOR | CEAS4R7M50 |
| C161 | CERAMIC CAPACITOR | CGCYX104K25 |
| C162 | ELECTR. CAPACITOR | CEAS010M50 |
| C163 | CERAMIC CAPACITOR | CGCYX104K25 |
| C164 | CERAMIC CAPACITOR | CGCYX103K25 |
| C167 | CERAMIC CAPACITOR | CKCYF103Z50 |
| C168 | CERAMIC CAPACITOR | CGCYX333K25 |
| C169 | CERAMIC CAPACITOR | CGCYX103K25 |
| C170 | CERAMIC CAPACITOR | CKCYB332K50 |
| C171, 172 | CERAMIC CAPACITOR | CKCYB472K50 |
| C202 | CERAMIC CAPACITOR | CKCYF103Z50 |
| C212 | CERAMIC CAPACITOR | CGCYX103K25 |
| C216, 217 | ELECTR. CAPACITOR | CEAS330M16 |
| C225 | CERAMIC CAPACITOR | CGCYX104K25 |
| C25 | ELECTR. CAPACITOR | CEAS332M16 |
| C26 | ELECTR. CAPACITOR | CEAS102M16 |
| C27 | ELECTROLYTIC CAPACIT | CEAS471M6R3 |
| C28 | ELECTR. CAPACITOR | CEAS101M10 |
| C29 | ELECTROLYTIC CAPACIT | CEAS471M6R3 |
| C301 | CERAMIC CAPACITOR | CGCYX104K25 |
| C302 | ELECTROLYTIC CAPACIT | CEAS471M6R3 |
| C306 | CERAMIC CAPACITOR | CKCYB152K50 |
| C307 | CERAMIC CAPACITOR | CGCYX473K25 |
| C308 | CERAMIC CAPACITOR | CGCYX103K25 |
| C309 | ELECTR. CAPACITOR | CEASR47M50 |
| C351 | ELECTROLYTIC CAPACIT | CEAS471M6R3 |
| C353 | CERAMIC CAPACITOR | CKCYF103Z50 |
| C397 | MYLOR FILM CAPACITOR | CQMA104K50 |
| C403 | CERAMIC CAPACITOR | CCCCH120J50 |
| C404 | CERAMIC CAPACITOR | CCCCH220J50 |
| C413-416 | MYLOR FILM CAPACITOR | CQMA104K50 |
| C421 | MYLOR FILM CAPACITOR | CQMA103K50 |
| C429, 430 | CERAMIC CAPACITOR | CCCCH390J50 |
| C431, 432 | ELECTR. CAPACITOR | CEAS330M16 |
| C433, 434 | ELECTR. CAPACITOR | CEAS220M25 |
| C435-438 | CERAMIC CAPACITOR | CCCCH390J50 |
| C441, 442 | MYLOR FILM CAPACITOR | CQMA152J50 |
| C461 | CERAMIC CAPACITOR | CKCYF103Z50 |
| C52 | ELECTR. CAPACITOR | CEAS010M35 |
| C60 | ELECTR. CAPACITOR | CEAS100M50 |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| **RESISTORS** | | | |
| | VR102 | VR ( 22kΩ ) | RCP1046 |
| | VR103 | VR ( 1kΩ ) | RCP1044 |
| | VR151, 152 | VR ( 22kΩ ) | RCP1046 |
| | Other resistors | | RD1/6PM□□□J |
| **OTHERS** | | | |
| | CN101 | CONNECTOR | 52045-1610 |
| | CN351 | CONNECTOR | 9602S-28C |
| | JA391, 392 | JACK/12V ( CONTROL IN, OUT ) | PKN1004 |
| | JA393 | JACK ( CD DECK SYNCHRO ) | PKN1005 |
| | JA401 | JACK ( LINE OUT L, R ) | PKB1009 |
| | X351 | CERAMIC RESONATOR ( 4.19MHz ) | VSS1014 |
| | X401 | XTAL RES ( OSC ) ( 16.9344MHz ) | PSS1006 |

## ◉ Function Board Assembly ( PWZ2103:PD-6700 )

| | | | |
|---|---|---|---|
| **SEMICONDUCTORS** | | | |
| | D701-711 | DIODE | 1SS254 |
| **RESISTOR** | | | |
| | R701 | CARBON FILM RESISTOR | RD1/6PM471J |
| **SWITCHES** | | | |
| | S701-735 | SWITCH ( PEAK SEARCH, CHECK, CLEAR, PGM, EDIT, RANDOM PLAY, MANUAL SEARCH(◁◁, ▷▷), STOP ( □ ), PLAY ( ◁ ), TRACK SEARCH ( ▯◁◁, ▷▷▯ ), PAUSE ( ▯▯ ), TRACK NUMBER ( 4-20, >20 ), OPEN/CLOSE ( ⏏ ), HI-LITE SCAN, REPEAT, TIME ) | PSG1006 |
| | S737-739 | SWITCH (TRACK NUMBER ( 3, 2, 1 )) | PSG1006 |
| **OTHERS** | | | |
| | | REMOTE SENSOR | GP1U50X |
| | CN701 | CONNECTOR | 9602S-30F |
| | V701 | FL INDICATOR TUBE | PEL1051 |

## ◉ Function Board Assembly ( PWZ2096:PD-5700 )

| | | | |
|---|---|---|---|
| **SEMICONDUCTORS** | | | |
| | D701-704 | DIODE | 1SS254 |
| | D708-711 | DIODE | 1SS254 |
| **SWITCHES** | | | |
| | S701-713 | SWITCH ( PEAK SEARCH, CHECK, CLEAR, PGM, EDIT, RANDOM PLAY, MANUAL SEARCH(◁◁, ▷▷), STOP ( □ ), PLAY ( ◁ ), TRACK SEARCH ( ▯◁◁, ▷▷▯ ), PAUSE ( ▯▯ ) | PSG1006 |
| | S724-739 | SWITCH ( OPEN/CLOSE ( ⏏ ), HI-LITE SCAN, REPEAT, TIME, TRACK NUMBER ( 1-10, +10, >20 ) | PSG1006 |

| Mark | No. | Description | Part No. |
|---|---|---|---|
| **RESISTOR** | | | |
| | R701 | CARBON FILM RESISTOR | RD1/6PM471J |
| **OTHERS** | | | |
| | | REMOTE SENSOR | GP1U50X |
| | CN701 | CONNECTOR | 9602S-30F |
| | V701 | FL INDICATOR TUBE | PEL1051 |

## ◉ Function Board Assembly ( PWZ2094:PD-4700 )

| | | | |
|---|---|---|---|
| **SEMICONDUCTORS** | | | |
| | D701-704 | DIODE | 1SS254 |
| | D708-711 | DIODE | 1SS254 |
| **SWITCHES** | | | |
| | S701-713 | SWITCH ( PEAK SEARCH, CHECK, CLEAR, PGM, EDIT, RANDOM PLAY, MANUAL SEARCH(◁◁, ▷▷), STOP ( □ ), PLAY ( ◁ ), TRACK SEARCH ( ▯◁◁, ▷▷▯ ), PAUSE ( ▯▯ ) | PSG1006 |
| | S724-739 | SWITCH ( OPEN/CLOSE ( ⏏ ), HI-LITE SCAN, REPEAT, TIME, TRACK NUMBER ( 1-10, +10, >20 ) | PSG1006 |
| **RESISTOR** | | | |
| | R701 | CARBON FILM RESISTOR | RD1/6PM471J |
| **OTHERS** | | | |
| | CN701 | CONNECTOR | 9602S-28F |
| | V701 | FL INDICATOR TUBE | PEL1051 |

# 9. ADJUSTMENTS

## 9.1. Adjustment Methods

If a disc player is adjusted incorrectly or inadequately, it may malfunction or not work at all even though there is nothing at all wrong with the pickup or the circuitry. Adjust correctly following the adjustment procedure.

### ● Adjustment items/verification items and order

| Step | Item | Test point | Adjustment location |
|---|---|---|---|
| 1 | Focus offset adjustment | TP1, Pin 6 (FCS. ERR) | VR103 (FCS. OFS) |
| 2 | Grating adjustment | TP1, Pin 2 (TRK. ERR) | Grating adjustment slit |
| 3 | Tracking error balance adjustment | TP1, Pin 2 (TRK. ERR) | VR102 (TRK. BAL) |
| 4 | Pickup radial/tangential direction tilt adjustment | TP1, Pin 1 (RF) | Radial tilt adjustment screw, Tangential tilt adjustment screw |
| 5 | RF level adjustment | TP1, Pin 1 (RF) | VR1 (RF level) |
| 6 | Focus servo loop gain adjustment | TP1, Pin 5 (FCS. IN)<br>TP1, Pin 6 (FCS. ERR) | VR152 (FCS. GAN) |
| 7 | Tracking servo loop gain adjustment | TP1, Pin 3 (TRK. IN)<br>TP1, Pin 2 (TRK. ERR) | VR151 (TRK. GAN) |
| 8 | Focus error signal verification | TP1, Pin 6 (FCS. ERR) | ———— |

● **Abbreviation table**

FCS. ERR :Focus Error
FCS. OFS :Focus Offset
TRK. ERR :Tracking Error
TRK. BAL :Tracking Balance
FCS. GAN :Focus Gain
TRK. GAN :Tracking Gain
FCS. IN :Focus In
TRK. IN :Tracking In

### ● Measuring instruments and tools

1. Dual trance oscilloscope (10:1 probe)
2. Low-frequency oscillator
3. Test disc (YEDS-7)
4. 12-cm disc (with at least about 70 minutes recording)
5. Low-pass filter (39 kΩ + 0.001 μF)
6. Resistor (100 kΩ )
7. Hexagonal wrench (M3 mm)
8. Standard tools

## ● Test point and adjustment variable resistor positions

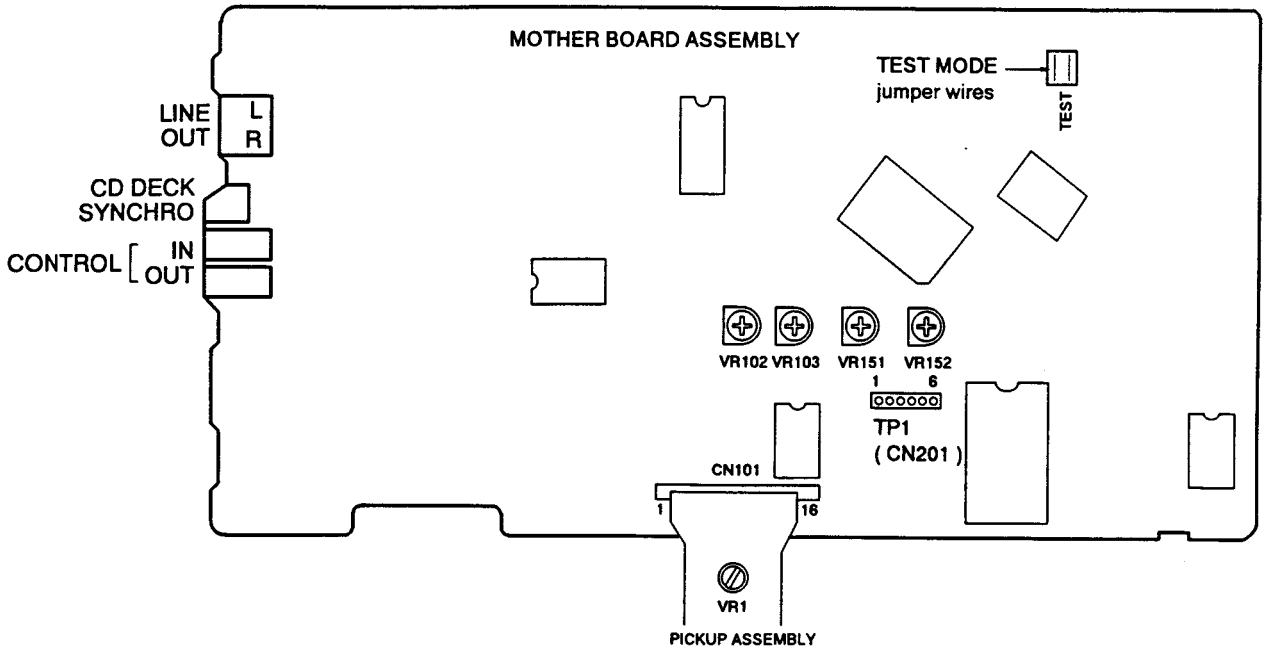



Figure 1 Adjustment Locations

## ● Notes

1. Use a 10:1 probe for the oscilloscope.
2. All the knob positions (settings) for the oscilloscope in the adjustment procedures are for when a 10:1 probe is used.

## ● Test mode

These models have a test mode so that the adjustments and checks required for service can be carried out easily. When these models are in test mode, the keys on the front panel work differently from normal. Adjustments and checks can be carried out by operating these keys with the correct procedure. For these models, all adjustments are carried out in test mode.

**[Setting these models to test mode]**

How to set this model into test mode.

1. Unplug the power cord from the AC socket.
2. Short the test mode jumper wires. (See Figure 1.)
3. Plug the power cord back into the AC socket.

When the test mode is set correctly, the display is different from what it usually is when the power is turned on. If the display is still the same as usual, test mode has not been set correctly, so repeat Steps 1 – 3.

**[Release from test mode]**

Here is the procedure for releasing the test mode:

1. Press the STOP key and stop all operations.
2. Unplug the power cord from the AC socket.

**[Operations of the keys in test mode]**

| Code | Key name | Function in test mode | Explanation |
|---|---|---|---|
| | PROGRAM | Focus servo close | The laser diode is lit up and the focus actuator is lowered, then raised slowly and the focus servo is closed at the point where the objective lens is focused on the disc.<br>With the player in this state, if you lightly rotate the stopped disc by hand, you can hear the sound the focus servo.<br>If you can hear this sound, the focus servo is operating correctly. If you press this key with no disc mounted, the laser diode lights up, the focus actuator is pulled down, then the actuator is raised and lowered twice and returned to its original position. |
| ▷ | PLAY | Spindle servo ON | Starts the spindle motor in the clockwise direction and when the disc rotation reaches the prescribed speed (about 500 rpm at the inner periphery), sets the spindle servo in a closed loop.<br>Be careful. Pressing this key when there is no disc mounted makes the spindle motor run at the maximum speed.<br>If the focus servo does not go correctly into a closed loop or the laser light shines on the mirror section at the outermost periphery of the disc, the same symptom is occurred. |
| □□ | PAUSE | Tracking servo close/open | Pressing this key when the focus servo and spindle servo are operating correctly in closed loops puts the tracking servo into a closed loop, displays the track number being played back and the elapsed time on the front panel, and outputs the playback signal.<br>If the elapsed time is not displayed or not counted correctly or the audio is not played back correctly, it may be that the laser is shining on the section with no sound recorded at the outer edge of the disc, that something is out of adjustment, or that there is some other problem.<br>This key is a toggle key and open/close the tracking servo alternately. This key has no effect if no disc is mounted. |

| Code | Key name | Function in test mode | Explanation |
|---|---|---|---|
| ◁◁ | MANUAL SEARCH REV | Carriage reverse (inwards) | Moves the pickup position toward the inner diameter of the disc. When this key is pressed with the tracking servo in a closed loop, the tracking servo automatically goes into an open loop. Since the motor does not automatically stop at the mechanical end point in test mode, be careful with this operation. |
| ▷▷ | MANUAL SEARCH FWD | Carriage forward (outwards) | Moves the pickup position toward the outer diameter of the disc. When this key is pressed with the tracking servo in a closed loop, the tracking servo automatically goes into an open loop. Since the motor does not automatically stop at the mechanical end point in test mode, be careful with this operation. |
| □ | STOP | Stop | Switches off all the servos and initialized.<br>The pickup remains where it was when this key was pressed. |
| ⏏ | OPEN/CLOSE | Disc tray open/close | Open/close the disc tray. This key is a toggle key and open/close tray altenately.<br>Pressing this key when the disc is turning stops the disc, then opens the tray.<br>This key operation does not affect the position of the pickup. |

**[How to play back a disc in test mode]**

In test mode, since the servos operate independently, playing back a disc requires that you operate the keys in the correct order to close the servos.
Here is the key operation sequence for playing back a disc in test mode.

| | |
|---|---|
| PROGRAM | Lights up the laser diode and closes the focus servo. |
| ⇩ | |
| PLAY ▷ | Starts the spindle motor and closes the spindle servo. |
| ⇩ | |
| PAUSE ▯▯ | Closes the tracking servo. |

Wait at least 2–3 seconds between each of these operations.

## 1. Focus Offset Adjustment

| | | | |
|---|---|---|---|
| ● Objective<br>● Symptom when out of adjustment | Sets the DC offset for the focus error amp.<br>The model does not focus in and the RF signal is dirty. | | |
| ● Measurement instrument connections | Connect the oscilloscope to TP1, Pin 6 (FCS. ERR)<br>[Settings] 5 mV/division<br>10 ms/division<br>DC mode | ● Player state<br>● Adjustment location<br>● Disc | Test mode, stopped<br>(just the Power switch on)<br>VR103 (FCS. OFS)<br>None needed |

**[Procedure]**

Adjust VR103 (FCS. OFS) so that the DC voltage at TP1, Pin 6 (FCS. ERR) is $-50 \pm 50$ mV.

## 2. Grating Adjustment

| | | | |
|---|---|---|---|
| ● Objective<br>● Symptom when out of adjustment | To align the tracking error generation laser beam spots to the optimum angle on the track.<br>Play does not start, track search is impossible, tracks are skipped. | | |
| ● Measurement instrument connections | Connect the oscilloscope to TP1, Pin 2 (TRK. ERR) via a low pass filter. (See Figure 2)<br>[Settings] 50 mV/division<br>5 ms/division<br>DC mode | ● Player state<br>● Adjustment location<br>● Disc | Test mode, focus and spindle servos closed and tracking servo open<br>Pickup grating adjustment slit<br>12-cm disc. (YEDS-7 can not be used.) |

**[Procedure]**

1. Move the pickup to the outer edge of the disc with the MANUAL SEARCH FWD ▷▷ or REV ◁◁ key.
2. Press the PROGRAM key, then the PLAY ▷ key in that order to close the focus servo then the spindle servo.
3. Insert an ordinary screwdriver into the grating adjustment slit and adjust the grating to find the null point. For more details, see the next page.
4. If you slowly turn the screwdriver counterclockwise from the null point, the amplitude of the wave gradually increases, then if you continue turning the screwdriver, the amplitude of the wave becomes smaller again. Turn the screwdriver counterclockwise from the null point and set the grating to the first point where the wave amplitude reaches its maximum.
   **Reference** : Figure 3 shows the relation between the angle of the tracking beam with the track and the waveform.

   **Note** : The amplitude of the tracking error signal is about 3 Vp-p (when a 39 kΩ + 0.001 μF low pass filter is used). If this amplitude is extremely small (2 Vp-p or less), the objective lens or the pickup malfunction may be the cause. If the difference between the amplitude of the error signal at the innermost edge and outermost edge of the disc is more than 10%, the grating is not adjusted to the optimum point, so adjust it again.
5. Return the pickup to more or less midway across the disc with the MANUAL SEARCH REV ◁◁ key, press the PAUSE ▯▯ key and double check that the track number and elapsed time are displayed on the front panel. If they are not displayed at this time or the elapsed time changes irregularly, double check the null point and adjust the grating again.

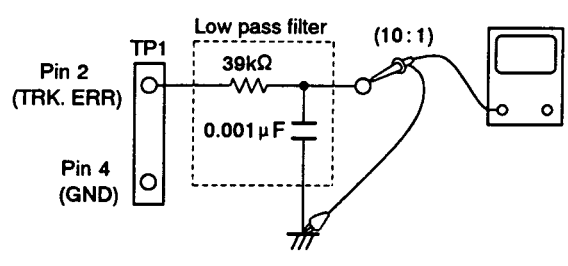
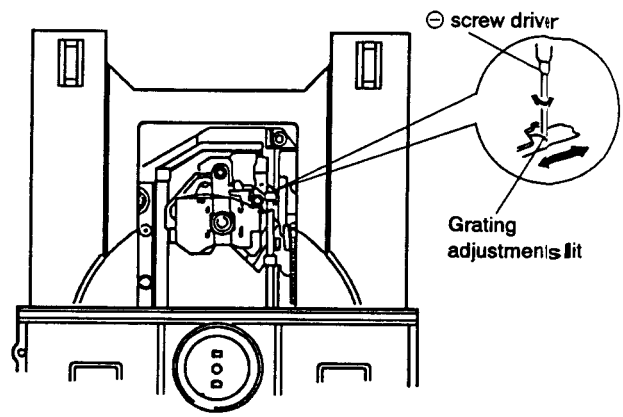



Figure 2




Adjustment locations

**[How to find the null point]**

When you insert the regular screwdriver into the slit for the grating adjustment and change the grating angle, the amplitude of the tracking error signal at TP1, Pin 2 changes. Within the range for the grating, there are five or six locations where the amplitude of the wave reaches a minimum. Of these five or six locations, there is only one at which the envelope of the waveform is smooth. This location is where the three laser beams divided by the grating are all right above the same track. (See Figure 3.)
This point is called the null point. When adjusting the grating, this null point is found and used as the reference position.

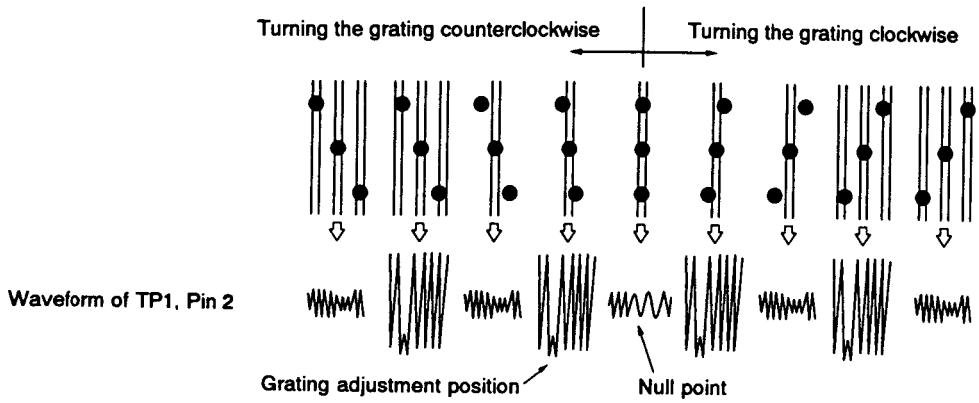
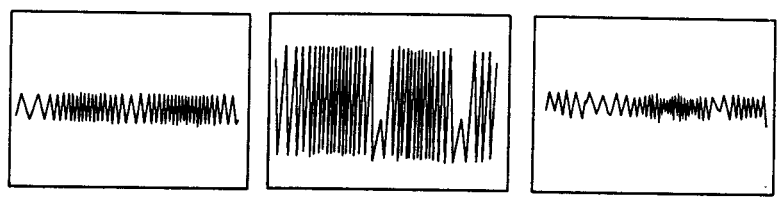



Figure 3

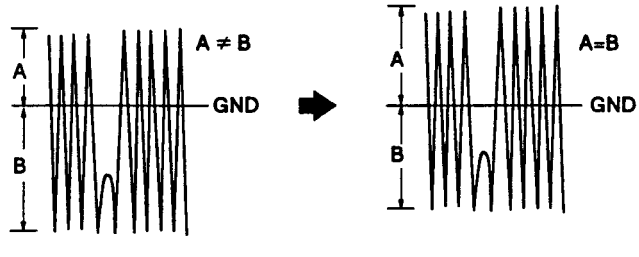


## 3. Tracking Error Balance Adjustment

| | | | |
|---|---|---|---|
| ● Objective<br><br>● Symptom when out of adjustment | To correct for the variation in the sensitivity of the tracking photodiode.<br><br>Play does not start or track search is impossible. | | |
| ● Measurement instrument connections | Connect the oscilloscope to TP1, Pin 2 (TRK. ERR). This connection may be via a low pass filter.<br><br>[Settings] 50 mV/division<br>5 ms/division<br>DC mode | ● Player state<br><br>● Adjustment location<br><br>● Disc | Test mode, focus and spindle servos closed and tracking servo open<br><br>VR102 (TRK. BAL)<br><br>YEDS-7 |

**[Procedure]**

1. Move the pickup to midway across the disc (R=35 mm) with the MANUAL SEARCH FWD ▷▷ or REV ◁◁ key.
2. Press the PROGRAM key, then the PLAY ▷ key in that order to close the focus servo then the spindle servo.
3. Line up the bright line (ground) at the center of the oscilloscope screen and put the oscilloscope into DC mode.
4. Adjust VR102 (TRK. BAL) so that the positive amplitude and negative amplitude of the tracking error signal at TP1, Pin 2 (TRK. ERR) are the same (in other words, so that there is no DC component).




When there is a DC component

When there is no DC component

## 4. Pickup Radial/Tangential Tilt Adjustment

| | | | |
|---|---|---|---|
| ● Objective<br><br>● Symptom when out of adjustment | To adjust the angle of the pickup relative to the disc so that the laser beams are shone straight down into the disc for the best read out of the RF signals.<br><br>Sound broken;some discs can be played but not others. | | |
| ● Measurement instrument connections | Connect the oscilloscope to TP1, Pin 1 (RF).<br><br>[Settings] 20 mV/division<br>200 ns/division<br>AC mode | ● Player state<br><br>● Adjustment location<br><br>● Disc | Test mode, play<br><br>Pickup radial tilt adjustment screw and tangential tilt adjustment screw<br><br>12-cm disc.<br>(YEDS-7 can not be used.) |

**[Procedure]**

1. Press the MANUAL SEARCH FWD ▷▷ or REV ◁◁ key so that the radial/tangential tilt screws can be adjusted. Press the PROGRAM key, the PLAY ▷ key, then the PAUSE ▯▯ key in that order to close the focus servo then the spindle servo and put the player into play mode.
2. First, adjust the radial tilt adjustment screw with an M3-mm hexagonal wrench so that the eye pattern (the diamond shape at the center of the RF signal) can be seen the most clearly.
3. Next, adjust the tangential tilt adjustment screw with an M3-mm hexagonal wrench so that the eye pattern (the diamond shape at the center of the RF signal) can be seen the most clearly (Figure 5).
4. Adjust the radial tilt adjustment screw and the tangential tilt adjustment screw again so that the eye pattern can be seen the most clearly. As necessary, adjust the two screws alternately so that the eye pattern can be seen the most clearly.

**Note**:Radial and tangential mean the directions relative to the disc shown in Figure 4.

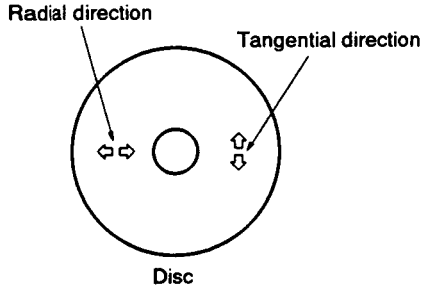
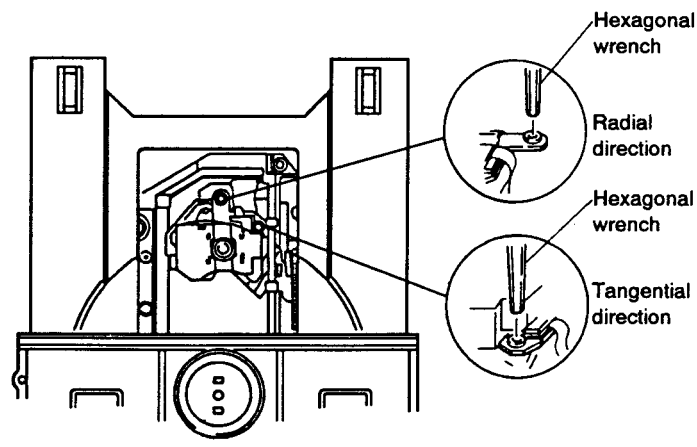



Figure 4




Adjustment locations

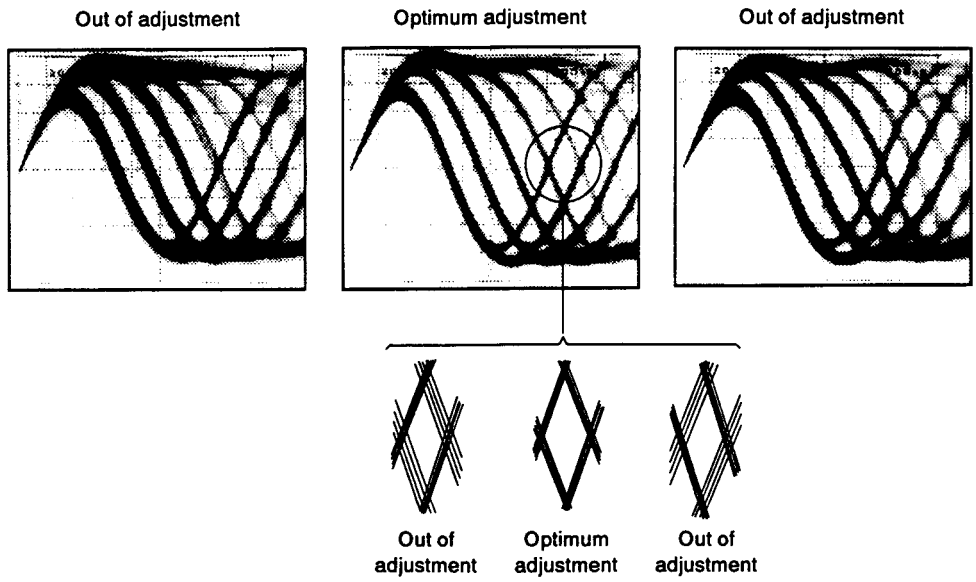



Figure 5 Eye pattern

## 5. RF Level Adjustment

| | | | |
|---|---|---|---|
| ● Objective<br>● Symptom when out of adjustment | To optimize the playback RF signal amplitude<br>No play or no search | | |
| ● Measurement instrument connections | Connect the oscilloscope to TP1, Pin 1 (RF).<br>[Settings] 50 mV/division<br>10 ms/division<br>AC mode | ● Player state<br>● Adjustment location<br>● Disc | Test mode, play<br>VR1(laser power)<br>YEDS-7 |

**[Procedure]**

1. Move the pickup to midway across the disc (R=35 mm) with the MANUAL SEARCH FWD ▷▷ or REV ◁◁ key, then press the PROGRAM key, then the PLAY ▷ key in that order to close the respective servos and put the player into play mode.
2. Adjust VR1 (laser power) so that the RF signal amplitude is 1.2 Vp-p ± 0.1 V.

## 6. Focus Servo Loop Gain Adjustment

| | | | |
|---|---|---|---|
| ●Objective<br>●Symptom when out of adjustment | To optimize the focus servo loop gain.<br>Playback does not start or focus actuator noisy. | | |
| ●Measurement instrument connections | See figure 6.<br>[Settings]<br>CH1 CH2<br>20 mV/division 5 mV/division<br>X-Y mode | ●Player state<br>●Adjustment location<br>●Disc | Test mode, play<br>VR152 (FCS. GAN)<br>YEDS-7 |

**[Procedure]**

1. Set the AF generator output to 1.2 kHz and 1 Vp-p.
2. Press the MANUAL SEARCH FWD ▷▷ or REV ◁◁ key to move the pickup to halfway across the disc (R=35 mm), then press the PROGRAM key, the PLAY ▷ key, then the PAUSE ▯▯ key in that order to close the corresponding servos and put the player into play mode.
3. Adjust VR152 (FCS. GAN) so that the Lissajous waveform is symmetrical about the X axis and the Y axis.

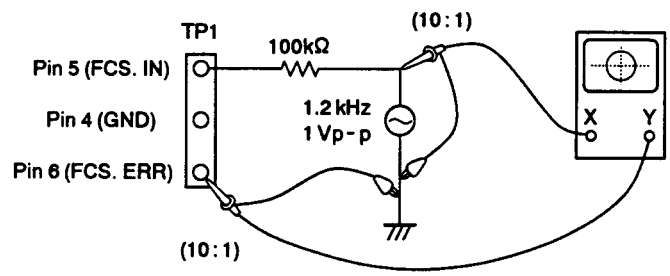
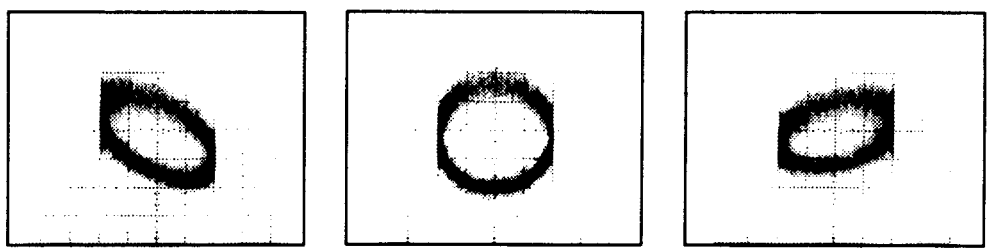



Figure 6

Focus Gain Adjustment



Higher gain | Optimum gain | Lower gain

## 7. Tracking Servo Loop Gain Adjustment

| | | | |
|---|---|---|---|
| ● Objective<br><br>● Symptom when out of adjustment | To optimize the tracking servo loop gain.<br><br>Playback does not start, during searches the actuator is noisy, or tracks are skipped. | | |
| ● Measurement instrument connections | See Figure 7.<br><br>[Settings]<br>CH1 CH2<br>50 mV/division 50 mV/division<br>X-Y mode | ● Player state<br><br>● Adjustment location<br><br>● Disc | Test mode, play<br><br>VR151 (TRK. GAN)<br><br>YEDS-7 |

**[Procedure]**

1. Set the AF generator output to 1.2 kHz and 2 Vp-p.
2. Press the MANUAL SEARCH FWD ▷▷ or REV ◁◁ key to move the pickup to halfway across the disc (R=35 mm), then press the PROGRAM key, the PLAY ▷ key, then the PAUSE ▯▯ key in that order to close the corresponding servos and put the player into play mode.
3. Adjust VR151 (TRK. GAN) so that the Lissajous waveform is symmetrical about the X axis and the Y axis.

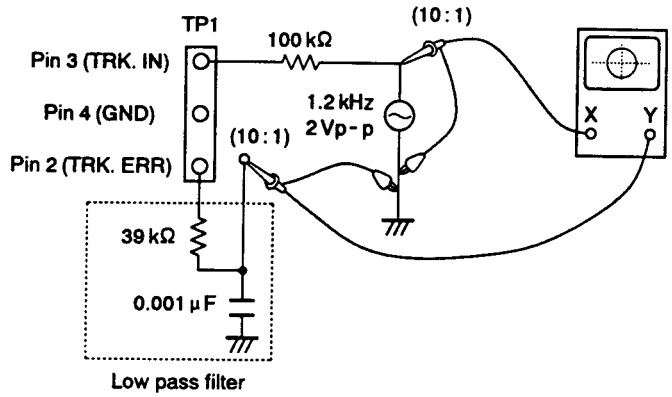
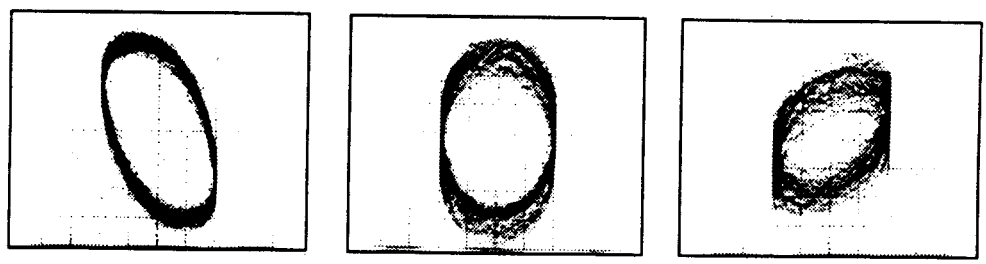



Figure 7

Tracking Gain Adjustment



Higher gain | Optimum gain | Lower gain

## 8. Focus Error Signal (Focus S Curve) Verification

| | | | |
|---|---|---|---|
| ● Objective<br><br>● Symptom when out of adjustment | To judge whether the pickup is ok or not by observing the focus error signal. The pickup is judged from the amplitude of the tracking error signal (as discussed in the section on adjusting the tracking error balance) and the waveform for the focus error signal. | | |
| ● Measurement instrument connections | Connect the oscilloscope to TP1, Pin 6 (FCS. ERR).<br><br>[Settings] 100 mV/division<br>5 ms/division<br>DC mode | ● Player state<br><br>● Adjustment location<br><br>● Disc | Test mode, stop<br><br>None<br><br>YEDS-7 |

**[Procedure]**

1. Connect TP1 Pin 5 to ground.
2. Mount the disc.
3. While watching the oscilloscope screen, press the PROGRAM key and observe the waveform in Figure 8 for a moment. Verify that the amplitude is at least 2.5 Vp-p and that the positive and negative amplitude are about equal. Since the waveform is only output for a moment when the PROGRAM key is pressed, press this key over and over until you have checked the waveform.

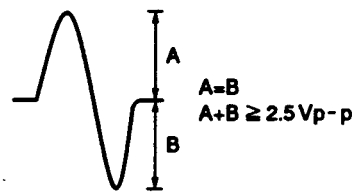



Figure 8

**[Judging the pickup]**

Do not judge the pickup until all the adjustments have been made correctly. In the following cases, there may be something wrong with the pickup.

1. The tracking error signal amplitude is extremely small (less than 2 Vp-p).
2. The focus error signal amplitude is extremely small (less than 2.5 Vp-p).
3. The positive and negative amplitudes of the focus error signal are extremely asymmetrical (2 : 1 ratio or more).
4. The RF signal is too small (less than 0.8 Vp-p) and even if VR1 (laser power) is adjusted , the RF signal can not be brought up to the standard level.

# 10. FOR PD-6700/KC, KUXJ, KCXJ, PD-5700/KC, KUXJ, KCXJ, PD-4700/KC, KUXJ AND KCXJ TYPES

*NOTES:*
- *Parts without part number cannot be supplied.*
- *Parts marked by " ◉ " are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*

## 10.1 FOR PD-6700/KC, KUXJ AND KCXJ TYPES

### CONTRAST OF MISCELLANEOUS PARTS

The PD-6700/KC, KUXJ and KCXJ types are the same as the PD-6700/KU type with the exception of the following sections.

| Mark | Symbol & Description | Part No. | | | | Remarks |
|---|---|---|---|---|---|---|
| | | KU type | KC type | KUXJ type | KCXJ type | |
| | CD packing case | PHG1700 | PHG1700 | PHG1627 | PHG1628 | For packing |
| | Bonnet | PYY1147 | PYY1147 | PYY1129 | PYY1129 | |
| | Operating instructions(English) | PRB1138 | ••••• | PRB1138 | ••••• | |
| | Operating instructions (English/French) | ••••• | PRE1141 | ••••• | PRE1141 | |

Note: As to the SCHEMATIC DIAGRAM and P. C. BOARDS CONNECTION DIAGRAM of theKC, KUXJ and KCXJ types, refer to those of the KU type.

## 10.2 FOR PD-5700/KC, KUXJ AND KCXJ TYPES

### CONTRAST OF MISCELLANEOUS PARTS

The PD-5700/KC, KUXJ and KCXJ types are the same as the PD-5700/KU type with the exception of the following sections.

| Mark | Symbol & Description | Part No. | | | | Remarks |
|---|---|---|---|---|---|---|
| | | KU type | KC type | KUXJ type | KCXJ type | |
| | CD packing case | PHG1699 | PHG1699 | PHG1622 | PHG1625 | For packing |
| | Bonnet | PYY1147 | PYY1147 | PYY1129 | PYY1129 | |
| | Operating instructions(English) | PRB1138 | ••••• | PRB1138 | ••••• | |
| | Operating instructions (English/French) | ••••• | PRE1141 | ••••• | PRE1141 | |

Note: As to the SCHEMATIC DIAGRAM and P. C. BOARDS CONNECTION DIAGRAM of theKC, KUXJ and KCXJ types, refer to those of the KU type.

## 10.3 FOR PD-4700/KC, KUXJ AND KCXJ TYPES

### CONTRAST OF MISCELLANEOUS PARTS

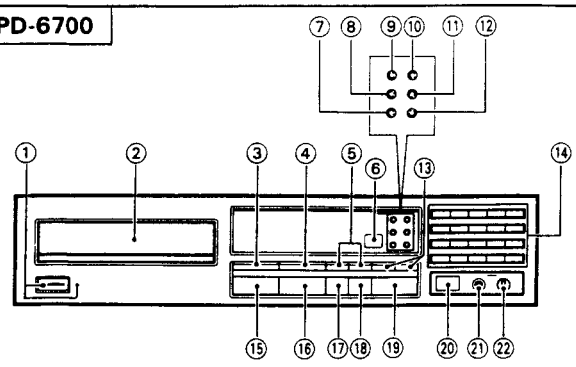
The PD-4700/KC, KUXJ and KCXJ types are the same as the PD-4700/KU type with the exception of the following sections.

| Mark | Symbol & Description | Part No. | | | | Remarks |
|---|---|---|---|---|---|---|
| | | KU type | KC type | KUXJ type | KCXJ type | |
| | CD packing case | PHG1698 | PHG1698 | PHG1617 | PHG1619 | For packing |
| | Bonnet | PYY1147 | PYY1147 | PYY1129 | PYY1129 | |
| | Operating instructions(English) | PRB1138 | ••••• | PRB1138 | ••••• | |
| | Operating instructions (English/French) | ••••• | PRE1141 | ••••• | PRE1141 | |

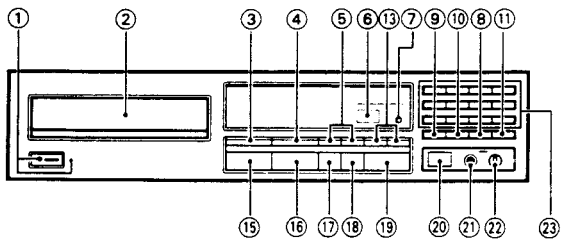
Note: As to the SCHEMATIC DIAGRAM and P. C. BOARDS CONNECTION DIAGRAM of the KC, KUXJ and KCXJ types, refer to those of the KU type.

# 11. PANEL FACILITIES

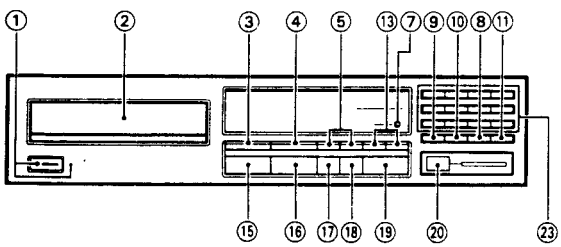
PD-6700



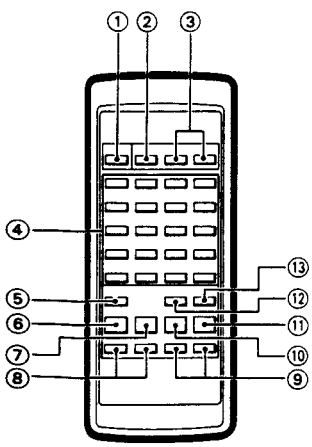
PD-5700



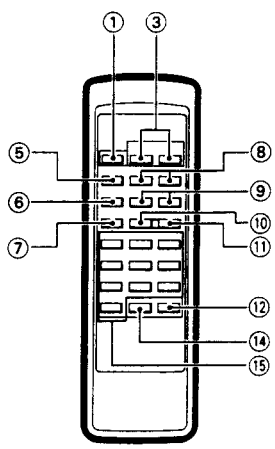
PD-4700



PD-6700 only



PD-5700 only



## FRONT PANEL

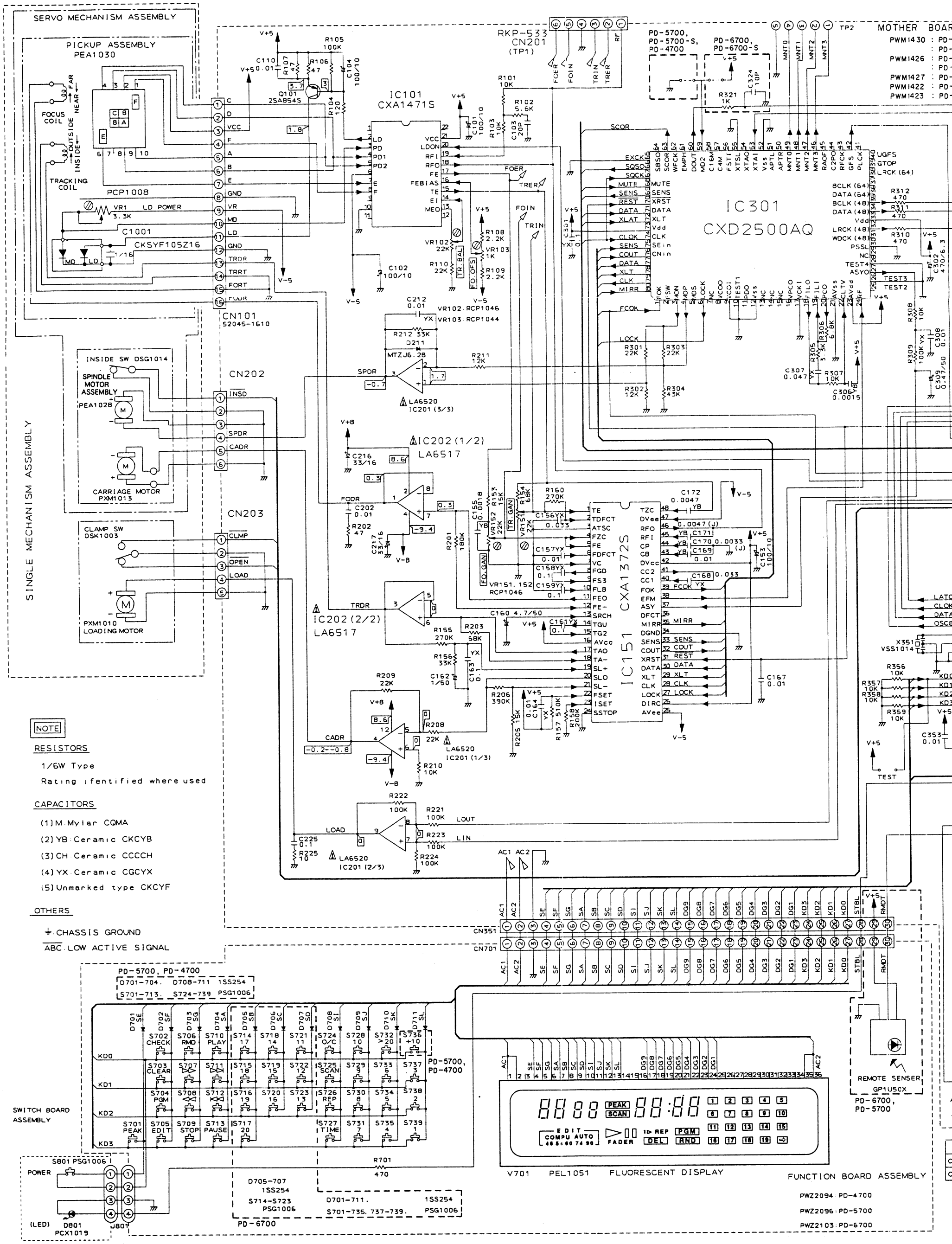
① POWER STANDBY/ON switch and indicator
② Disc tray
③ REPEAT button
④ HI-LITE SCAN button
⑤ MANUAL SEARCH (MANUAL) buttons (◀◀, ▶▶)
⑥ Remote sensor
⑦ TIME button
⑧ CHECK button
⑨ Program edit button (EDIT)
(■ COMPU/■■ AUTO)
⑩ Program button (PGM)
⑪ CLEAR button
⑫ >20 button
⑬ TRACK SEARCH (TRACK) buttons (⏮, ⏭)
⑭ TRACK NUMBER buttons (1—20)
⑮ OPEN/CLOSE button (⏏)
⑯ RANDOM PLAY button
⑰ STOP button (■)
⑱ PAUSE button (▮▮)
⑲ PLAY button (▶)
⑳ PEAK SEARCH button
㉑ Headphones jack (PHONES)
㉒ Headphones volume control (PHONES LEVEL)
㉓ TRACK NUMBER buttons (1—10, +10, >20)

*NOTE:*
*Items ㉑ and ㉒ are included on the U.K. and European models of the PD-4700.*

## REMOTE CONTROL UNIT

Buttons listed here but not accompanied with explanations have the same functions as the corresponding front panel buttons.

① POWER button
② OPEN/CLOSE button
③ OUTPUT LEVEL buttons (−, +)
④ Track number buttons (1—20)
⑤ Hi-lite scan button (HI-LITE SCAN)
⑥ RANDOM PLAY button
⑦ STOP/clear button (■)
⑧ Manual search buttons (MANUAL ◀◀, ▶▶)
⑨ Track search buttons (TRACK ⏮, ⏭)
⑩ PAUSE button (▮▮)
⑪ PLAY button (▶)
⑫ Program button (PROGRAM/PGM)
⑬ >20 button
⑭ >10 button
⑮ Track number buttons (1—10)


SERVO MECHANISM ASSEMBLY
PICKUP ASSEMBLY
PEA1030
FOCUS COIL
TRACKING COIL
FAR
NEAR
OUTSIDE
INSIDE
PCP1008
VR1 LD POWER 3.3K
C1001
CKSYF105Z16
MD
LD
CN101
52045-1610
C
D
VCC
F
A
B
E
GND
VR
MD
LD
GND
TRDR
TRRT
FORT
FOUR
V+5
V-5
R105 100K
C110 0.01
R107 47
R106 47
C104 100/10
Q101 2SA854S
R104 120
IC101
CXA1471S
LD
PD
PD1
PD2
VCC
LDON
RFI
RFO
FE
FEBIAS
TE
EI
MEO
C101 100/10
R103 10K
C103 20P
R101 10K
R102 5.6K
FOER
TRER
FOIN
TRIN
VR102 22K
TR.BAL
R110 22K
VR103 1K
FO.OFS
R108 2.2K
R109 2.2K
C102 100/10
RKP-533
CN201
(TP1)
RF
PD-5700, PD-5700-S, PD-4700
PD-6700, PD-6700-S
TP2
MOTHER BOAR
PWM1430 : PD-
PWM1426 : PD-
PWM1427 : PD-
PWM1422 : PD-
PWM1423 : PD-
MNT0
MNT1
MNT2
MNT3
R321 1K
C324 10P
SCOR
EXCK
SQSO
SQCK
MUTE
SENS
REST
DATA
XLAT
CLOK
SENS
COUT
DATA
XLT
CLK
MIRR
FCOK
LOCK
IC301
CXD2500AQ
R301 22K
R303 22K
R302 12K
R304 43K
C307 0.047
R305 3.3K
R306 6.8K
R307 10K
C306 0.0015
C308 0.01
R309 100K
R308 10K
C309 0.47/50
R312 470
R311 470
R310 470
C302 470/6.3
BCLK (64)
DATA (64)
BCLK (48)
DATA (48)
LRCK (48)
WDCK (48)
PSSL
NC
TEST4
ASYO
TEST3
TEST2
UGFS
GTOP
LRCK (64)
INSIDE SW DSG1014
SPINDLE MOTOR ASSEMBLY
PEA1028
CARRIAGE MOTOR PXM1013
CLAMP SW DSK1003
PXM1010 LOADING MOTOR
SINGLE MECHANISM ASSEMBLY
CN202
CN203
INSD
SPDR
CADR
CLMP
OPEN
LOAD
C212 0.01
R212 33K
D211 MTZJ6.2B
R211 12K
VR102:RCP1046
VR103:RCP1044
LA6520
IC201 (3/3)
IC202 (1/2)
LA6517
C216 33/16
C202 0.01
R202 47
C217 33/16
R201 180K
C155 0.0018
R153 15K
R154 68K
R152 22K
VR152
TR.GAN
FO.GAN
VR151, 152
RCP1046
R160 270K
C172 0.0047
C156YX 0.033
C157YX 0.01
C158YX 0.1
C159YX 0.1
C171
C170 0.0033 (J)
C169 0.01
C153 100/10
C168 0.033
IC151
CXA1372S
TE
TDFCT
ATSC
FZC
FE
FDFCT
VC
FGD
FS3
FLB
FEO
FE-
SRCH
TGU
TG2
AVcc
TAO
TA-
SL+
SLO
SL-
FSET
ISET
SSTOP
TZC
DVee
RFO
RFI
CP
CB
DVcc
CC2
CC1
FOK
EFM
ASY
DFCT
MIRR
DGND
SENS
COUT
XRST
DATA
XLT
CLK
LOCK
DIRC
AVee
IC202 (2/2)
LA6517
C160 4.7/50
C161YX 0.1
R155 270K
R203 68K
R156 33K
C162 1/50
C163 0.1
R209 22K
R208 22K
R210 10K
R206 390K
R205 15K
C164 0.01
R157 510K
R158 200K
C167 0.01
X351
VSS1014
R356 10K
R357 10K
R358 10K
R359 10K
C353 0.01
TEST
R222 100K
R221 100K
R223 100K
R224 100K
R225 10
C225 0.1
LOUT
LIN
AC1 AC2
CN351
CN701
SE SF SG SA SB SC SD SI SJ SK SL
DG9 DG8 DG7 DG6 DG5 DG4 DG3 DG2 DG1
KD3 KD2 KD1 KD0 STBL RMOT
REMOTE SENSER
GP1U50X
PD-6700, PD-5700
PD-5700, PD-4700
D701-704. D708-711 1SS254
S701-713. S724-739 PSG1006
S702 CHECK
S706 RMD
S710 PLAY
S714 17
S718 14
S721 11
S724 O/C
S728 10
S732 >20
S736 +10
S703 CLEAR
S707
S711
S715 18
S719 15
S722 12
S725 SCAN
S729 9
S733 6
S737 3
S704 PGM
S708
S712
S716 19
S720 16
S723 13
S726 REP
S730 8
S734 5
S738 2
S701 PEAK
S705 EDIT
S709 STOP
S713 PAUSE
S717 20
S727 TIME
S731 7
S735 4
S739 1
KD0
KD1
KD2
KD3
SWITCH BOARD ASSEMBLY
R701 470
S801 PSG1006
POWER
(LED)
D801 PCX1019
J801
D705-707 1SS254
S714-S723 PSG1006
PD-6700
D701-711. 1SS254
S701-735. 737-739. PSG1006
V701 PEL1051 FLUORESCENT DISPLAY
EDIT
COMPU AUTO
FADER
PEAK
SCAN
1D REP
PGM
DEL
RND
FUNCTION BOARD ASSEMBLY
PWZ2094 : PD-4700
PWZ2096 : PD-5700
PWZ2103 : PD-6700
NOTE
RESISTORS
1/6W Type
Rating ifentified where used
CAPACITORS
(1) M Mylar CQMA
(2) YB Ceramic CKCYB
(3) CH Ceramic CCCCH
(4) YX Ceramic CGCYX
(5) Unmarked type CKCYF
OTHERS
CHASSIS GROUND
ABC LOW ACTIVE SIGNAL

MOTHER BOARD ASSEMBLY

| | |
|---|---|
| PWM1430 | : PD-6700/MEMXJ, UBXJ |
| | : PD-6700-S/MEWMXJ |
| PWM1426 | : PD-5700/MEMXJ, UBXJ, UPW |
| | : PD-5700-S/MEWMXJ |
| PWM1427 | : PD-5700/SD |
| PWM1422 | : PD-4700/MEMXJ, UBXJ |
| PWM1423 | : PD-4700/SD PWM1421 : PD-4700/UPW |

PD-6700, PD-6700-S

DIGITAL OUT

JA301 TOTX178

OPTICAL

EXCEPT PD-4700/SD

IC4401 PD2026A

IC351 PD4320B

PD-4700

PD-6700, PD-6700-S, PD-5700, PD-5700-S

JA4C1 (1/2) PKB1009

LINEOUT JACK

JA401 (2/2) PKB1009

HEADPHONE BOARD ASSEMBLY

JA393 PKN1005 CD DECK SYNCHRO

JA392 PKN1004 OUT

JA391 PKN1004 IN

CONTROL

J501

CN401 52147-0310

PHONES

● FOR SD TYPE

PTT1190

PSB1002 LINE VOLTAGE SELECTOR

1 : 240V
2 : 220V
3 : 120 – 127V
4 : 110V

POWER TRANSFORMER

PDG1013 AC POWER CORD

50/60Hz

AC220 – 230V
230 – 240V
50/60Hz

AC POWER CORD
MEMXJ, MEWMXJ : PDG1003
UBXJ : PDG1037
UPW : PDG1006

MEMXJ, MEWMXJ : PTT1188
UBXJ, UPW : PTT1189

*2

| | IC405 |
|---|---|
| PD-6700 PD-6700-S | NJM5532DD |
| OTHERS | NJM4558D-D |

*3

| | C433,C434 |
|---|---|
| PD-5700/SD PD-4700 | 22/25 |
| OTHERS | 22/50 |

*4

| | R445,R446 | R447,R448 | R461,R462 |
|---|---|---|---|
| PD-4700/SD | 1k | SHORT (JUMPER) | SHORT (JUMPER) |
| OTHERS | 270 | 470 | 270 |

| | IC31 |
|---|---|
| PD-5700/SD PD-4700/SD | SHORT (JUMPER) |
| OTHERS | USED |

| | PD-4700 | PD-5700, 6700 |
|---|---|---|
| CN351 | 9602S-28C | 9602S-30C |
| CN701 | 9602S-28F | 9602S-30F |

*5

| | C29 |
|---|---|
| PD-5700, PD-5700-S | 1000/16 |
| OTHERS | 470/6.3 |

### MOTHER BOARD ASSEMBLIES (PWM1426 and PWM1427)

The mother board assemblies (PWM1426 and PWM1427) are the same as the mother board assembly (PWM1425) with the exception of the following parts.

| Mark | Symbol & Description | Part No. | | | Remarks |
|---|---|---|---|---|---|
| | | PWM1425 | PWM1426 | PWM1427 | |
| ⚠ | IC31 | • • • • • | ICP-N10 | • • • • • | |
| | D391-D394 | 1SS254 | • • • • • | • • • • • | |
| | C29 | CEAS471M6R3 | CEAS102M16 | CEAS471M6R3 | |
| | C393 | CCCSL101J50 | • • • • • | • • • • • | |
| | C415,C416 | CQMA104K50 | CFTXA104J50 | CQMA104K50 | |
| | C433,C434 | CEAS220M25 | CEAS220M50 | CEAS220M50 | |
| | C441,C442 | CQMA152J50 | CQSA152J50 | CQMA152J50 | |
| | R391 | RD1/6PM244J | • • • • • | • • • • • | |
| | R392 | RD1/6PM102J | • • • • • | • • • • • | |
| | JA391, JA392 JACK (CONTROL IN, OUT) | PKN1004 | • • • • • | • • • • • | |

## 2.3 FOR PD-4700/MEMXJ, UBXJ, SD AND UPW TYPES

The PD-4700/MEMXJ, UBXJ, SD and UPW types are the same as the PD-4700/KU type with the exception of the following sections.

| Mark | Symbol & Description | Part No. | | | | | Remarks |
|---|---|---|---|---|---|---|---|
| | | PD-4700 /KU type | PD-4700 /MEMXJ type | PD-4700 /UBXJ type | PD-4700 /SD type | PD-4700 /UPW type | |
| ◉ | Mother board assembly | PWM1421 | PWM1422 | PWM1422 | PWM1423 | PWM1421 | |
| | Headphone board assembly | • • • • • | Non supply | Non supply | • • • • • | • • • • • | |
| ⚠ | Power transformer ( AC120V) | PTT1187 | • • • • • | • • • • • | • • • • • | • • • • • | |
| ⚠ | Power transformer (AC220V-230V, 230V-240V) | • • • • • | PTT1188 | PTT1189 | • • • • • | PTT1189 | |
| ⚠ | Power transformer (AC110V, 120-127V, 220-230V, 230-240V) | • • • • • | • • • • • | • • • • • | PTT1190 | • • • • • | |
| ⚠ | Line voltage selector (AC110V, 120-127V, 220-230V, 230-240V) | • • • • • | • • • • • | • • • • • | PSB1002 | • • • • • | |
| ⚠ | AC power cord | PDG1040 | PDG1003 | PDG1037 | PDG1013 | PDG1006 | |
| ⚠ | Strain relief | CM-22 | CM-22B | CM-22B | CM-22B | CM-22B | |
| | Headphone knob | • • • • • | PAC1370 | PAC1370 | • • • • • | • • • • • | |
| | Display window AK | PAM1462 | • • • • • | • • • • • | PAM1462 | PAM1462 | |
| | Display window AH | • • • • • | PAM1492 | PAM1492 | • • • • • | • • • • • | |
| | Function panel assembly | PEA1139 | PEA1144 | PEA1144 | PEA1139 | PEA1139 | |
| | CD packing case | PHG1698 | PHG1619 | PHG1619 | PHG1618 | PHG1618 | For packing |
| | Stopper | • • • • • | PNM1070 | PNM1070 | • • • • • | • • • • • | |
| | Insulator | • • • • • | VNK1095 | VNK1095 | • • • • • | • • • • • | |
| | Leg assembly | PXA1201 | • • • • • | • • • • • | PXA1201 | PXA1201 | |
| | Bonnet | PYY1147 | PYY1129 | PYY1129 | PYY1147 | PYY1147 | |
| | Operating instructions (English) | PRB1138 | • • • • • | PRB1138 | PRB1138 | PRB1138 | |
| | Operating instructions (Spanish) | • • • • • | • • • • • | • • • • • | PRC1029 | • • • • • | |
| | Operating instructions (English/French) | • • • • • | PRE1141 | • • • • • | • • • • • | • • • • • | |
| | Operating instructions (German/Italian / Dutch/Swedish/Spanish/Portuguese) | • • • • • | PRF1041 | • • • • • | • • • • • | • • • • • | |

### MOTHER BOARD ASSEMBLIES (PWM1422 AND PWM1423)

The mother board assemblies (PWM1422 and PWM1423) are the same as the mother board assembly (PWM1421) with the exception of the following parts.

| Mark | Symbol & Description | Part No. | | | Remarks |
|---|---|---|---|---|---|
| | | PWM1421 | PWM1422 | PWM1423 | |
| ⚠ | IC31 | • • • • • | ICP-N10 | • • • • • | |
| | IC406 | • • • • • | BA15218 | • • • • • | |
| | Q451,Q452 | • • • • • | DTA124ES | • • • • • | |
| | Q453,Q454 | • • • • • | 2SB1296 | • • • • • | |
| | C451,C452 | • • • • • | CEAS4R7M50 | • • • • • | |
| | R445,R446 | RD1/6PM102J | RD1/6PM271J | RD1/6PM102J | |
| | R447,R448,R459-R462 | • • • • • | RD1/6PM471J | • • • • • | |
| | R451,R452 | • • • • • | RD1/6PM473J | • • • • • | |
| | R453,R454,R481,R482 | • • • • • | RD1/6PM470J | • • • • • | |
| | R455,R456 | • • • • • | RD1/6PM102J | • • • • • | |
| | CN401 | • • • • • | 52147-0310 | • • • • • | |

### HEADPHONE BOARD ASSEMBLY

The headphone board assembly of the PD-4700/MEMXJ and UBXJ types are the same as the PD-6700 and PD-5700 series for the service supply parts.

## 2.4 SCHEMA

1. RESISTORS :
Indicated in Ω , 1/4W,
M;M Ω , (F); ± 1%, (G

2. CAPACITORS :
Indicated in capacity(
voltage is 50V except el

3. VOLTAGE, CURRENT :
;DC voltage(
⇦ mA ;DC current
Value in( )

4. OTHERS :
➡ ;Signal route.
⊘ ;Adjusting point.
The ⚠ mark found on
factor of the part. Th
designation.
※ marked capacitors a

This is the basic sc
improvements in design

5. SWITCHES : (The unde
SWITCH BOARD ASSE
S801 : POWER ON
FUNCTION BOARD AS
(PD-6700, PD-6700-
S701 : PEAK SEARC
S702 : CHECK
S703 : CLEAR
S704 : PGM
S705 : EDIT
S706 : RANDOM PL
S707 : ▷▷ ] MAN
S708 : ◁◁ ]
S709 : STOP(□)
S710 : PLAY(▷)
S711 : ▷▷▯ ] TR
S712 : ▯◁◁ ]
S713 : PAUSE(▯▯)
S714 : 17 ]
S715 : 18
S716 : 19
S717 : 20
S718 : 14 TRACK
S719 : 15
S720 : 16
S721 : 11
S722 : 12
S723 : 13 ]
S724 : OPEN/CLOS
S725 : HI - LITE SC
S726 : REPEAT
S727 : TIME
S728 : 10 ]
S729 : 9
S730 : 8
S731 : 7
S732 : >20
S733 : 6 TRA
S734 : 5
S735 : 4
S737 : 3
S738 : 2
S739 : 1 ]

1427)

e the same as the mother board assembly (PWM1425) with the

| Part No. | | | Remarks |
|---|---|---|---|
| M1425 | PWM1426 | PWM1427 | |
| • • • | ICP-N10 | • • • • • | |
| S254 | • • • • • | • • • • • | |
| 71M6R3 | CEAS102M16 | CEAS471M6R3 | |
| L101J50 | • • • • • | • • • • • | |
| 104K50 | CFTXA104J50 | CQMA104K50 | |
| 220M25 | CEAS220M50 | CEAS220M50 | |
| A152J50 | CQSA152J50 | CQMA152J50 | |
| PM244J | • • • • • | • • • • • | |
| PM102J | • • • • • | • • • • • | |
| N1004 | • • • • • | • • • • • | |

## PW TYPES

e same as the PD-4700/KU type with the exception of the

| Part No. | | | | Remarks |
|---|---|---|---|---|
| PD-4700 MEMXJ type | PD-4700 /UBXJ type | PD-4700 /SD type | PD-4700 /UPW type | |
| PWM1422 | PWM1422 | PWM1423 | PWM1421 | |
| Non supply | Non supply | • • • • • | • • • • • | |
| • • • • • | • • • • • | • • • • • | • • • • • | |
| PTT1188 | PTT1189 | • • • • • | PTT1189 | |
| • • • • • | • • • • • | PTT1190 | • • • • • | |
| • • • • • | • • • • • | PSB1002 | • • • • • | |
| PDG1003 | PDG1037 | PDG1013 | PDG1006 | |
| CM-22B | CM-22B | CM-22B | CM-22B | |
| PAC1370 | PAC1370 | • • • • • | • • • • • | |
| • • • • • | • • • • • | PAM1462 | PAM1462 | |
| PAM1492 | PAM1492 | • • • • • | • • • • • | |
| PEA1144 | PEA1144 | PEA1139 | PEA1139 | |
| PHG1619 | PHG1619 | PHG1618 | PHG1618 | For packing |
| PNM1070 | PNM1070 | • • • • • | • • • • • | |
| VNK1095 | VNK1095 | • • • • • | • • • • • | |
| • • • • • | • • • • • | PXA1201 | PXA1201 | |
| PYY1129 | PYY1129 | PYY1147 | PYY1147 | |
| • • • • • | PRB1138 | PRB1138 | PRB1138 | |
| • • • • • | • • • • • | PRC1029 | • • • • • | |
| PRE1141 | • • • • • | • • • • • | • • • • • | |
| PRF1041 | • • • • • | • • • • • | • • • • • | |

## MOTHER BOARD ASSEMBLIES (PWM1422 AND PWM1423)

The mother board assemblies (PWM1422 and PWM1423) are the same as the mother board assembly (PWM1421) with the exception of the following parts.

| Mark | Symbol & Description | Part No. | | | Remarks |
|---|---|---|---|---|---|
| | | PWM1421 | PWM1422 | PWM1423 | |
| ⚠ | IC31 | • • • • • | ICP-N10 | • • • • • | |
| | IC406 | • • • • • | BA15218 | • • • • • | |
| | Q451,Q452 | • • • • • | DTA124ES | • • • • • | |
| | Q453,Q454 | • • • • • | 2SB1296 | • • • • • | |
| | C451,C452 | • • • • • | CEAS4R7M50 | • • • • • | |
| | R445,R446 | RD1/6PM102J | RD1/6PM271J | RD1/6PM102J | |
| | R447,R448,R459-R462 | • • • • • | RD1/6PM471J | • • • • • | |
| | R451,R452 | • • • • • | RD1/6PM473J | • • • • • | |
| | R453,R454,R481,R482 | • • • • • | RD1/6PM470J | • • • • • | |
| | R455,R456 | • • • • • | RD1/6PM102J | • • • • • | |
| | CN401 | • • • • • | 52147-0310 | • • • • • | |

## HEADPHONE BOARD ASSEMBLY

The headphone board assembly of the PD-4700/MEMXJ and UBXJ types are the same as the PD-6700 and PD-5700 series for the service supply parts.

## 2.4 SCHEMATIC DIAGRAM

1. RESISTORS :
Indicated in Ω , 1/4W, 1/6W and 1/8W, ± 5% tolerance unless otherwise noted k;k Ω , M;M Ω , (F); ± 1%, (G); ± 2%, (K); ± 10%, (M); ± 20% tolerance.

2. CAPACITORS :
Indicated in capacity( μF)/voltage(V)unless otherwise noted p ; pF. Indication without voltage is 50V except electrolytic capacitor.

3. VOLTAGE, CURRENT :
▭ ;DC voltage(V)at play state.
⇦ mA ;DC current at play state.
Value in( )is DC current at stop state.

4. OTHERS :
➡ ;Signal route.
⊘ ;Adjusting point.
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
※ marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

5. SWITCHES : (The underlined indicates the switch position)
SWITCH BOARD ASSEMBLY
S801 : POWER ON — OFF

FUNCTION BOARD ASSEMBLY
(PD-6700, PD-6700-S TYPES)
S701 : PEAK SEARCH
S702 : CHECK
S703 : CLEAR
S704 : PGM
S705 : EDIT
S706 : RANDOM PLAY
S707 : ▷▷ ] MANUAL SEARCH
S708 : ◁◁ ]
S709 : STOP(□)
S710 : PLAY(▷)
S711 : ▷▷| ] TRACK SEARCH
S712 : |◁◁ ]
S713 : PAUSE(▯▯)
S714 : 17 ]
S715 : 18
S716 : 19
S717 : 20
S718 : 14
S719 : 15 TRACK NUMBER
S720 : 16
S721 : 11
S722 : 12
S723 : 13 ]
S724 : OPEN/CLOSE( ⏏ )
S725 : HI - LITE SCAN
S726 : REPEAT
S727 : TIME
S728 : 10 ]
S729 : 9
S730 : 8
S731 : 7
S732 : >20
S733 : 6 TRACK NUMBER
S734 : 5
S735 : 4
S737 : 3
S738 : 2
S739 : 1 ]

FUNCTION BOARD ASSEMBLY
(PD-5700, PD-5700-S AND PD4700 TYPES)
S701 : PEAK SEARCH
S702 : CHECK
S703 : CLEAR
S704 : PGM
S705 : EDIT
S706 : RANDOM PLAY
S707 : ▷▷ ] MANUAL SEARCH
S708 : ◁◁ ]
S709 : STOP(□)
S710 : PLAY(▷)
S711 : ▷▷| ] TRACK SEARCH
S712 : |◁◁ ]
S713 : PAUSE(▯▯)
S724 : OPEN/CLOSE( ⏏ )
S725 : HI - LITE SCAN
S726 : REPEAT
S727 : TIME
S728 : 10 ]
S729 : 9
S730 : 8
S731 : 7
S732 : >20
S733 : 6 TRACK NUMBER
S734 : 5
S735 : 4
S736 : +10
S737 : 3
S738 : 2
S739 : 1 ]

# 1. SAFETY INFORMATION

## (FOR EUROPEAN MODEL ONLY)

VARO!
AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

ADVERSEL:
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSAETTELSE FOR STRÅLING.

VARNING!
OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.

LASER
Kuva 1
Lasersateilyn
varoitusmerkki

WARNING!
DEVICE INCLUDES LASER DIODE WHICH EMITS INVISIBLE INFRARED RADIATION WHICH IS DANGEROUS TO EYES. THERE IS A WARNING SIGN ACCORDING TO PICTURE 1 INSIDE THE DEVICE CLOSE TO THE LASER DIODE.

IMPORTANT
THIS PIONEER APPARATUS CONTAINS LASER OF HIGHER CLASS THAN 1. SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUCTED PERSON.

LASER DIODE CHARACTERISTICS
MAXIMUM OUTPUT POWER: 5 mw
WAVELENGTH: 780-785 nm

LASER
Picture 1
Warning sign for
laser radiation

## LABEL CHECK (SINGLE type)

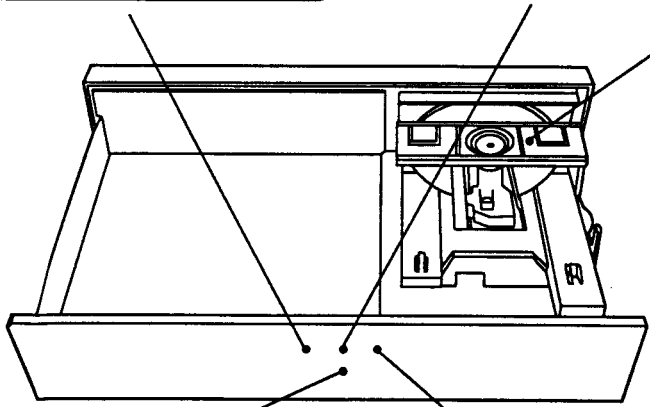
**UBXJ type**

CAUTION
INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM PRW1018

**MEMXJ and MEWMXJ types**

ADVARSEL
USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHED SAFBRYDERE ER UDE AF FUNKTION.
UNDGÅ UDSÆTTELSE FOR STRÅLING.
VORSICHT!
UNSICHTBARE LASER-STRAHLUNG TRITT AUS, WENN DECKEL (ODER KLAPPE) GEÖFFNET IST! NICHT DEM STRAHL AUSSETZEN!
VRW1094

**MEMXJ, MEWMXJ and UBXJ types**



VARO!
Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.
VARNING!
Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.
PRW1233

**MEMXJ and MEWMXJ types**

CLASS 1
LASER PRODUCT
VRW-328

**MEMXJ, MEWMXJ and UBXJ types**

### Additional Laser Caution

1. Laser Interlock Mechanism
   The position of the switch (S601) for detecting loading completion is detected by the system microprocessor, and the design prevents laser diode oscillation when the switch (S601) is not in $\overline{\text{CLMP}}$ terminal side (when the mechanism is not clamped and $\overline{\text{CLMP}}$ signal is high level).
   Thus, the interlock will no longer function if the switch (S601) is deliberately set to $\overline{\text{CLMP}}$ terminal side (if $\overline{\text{CLMP}}$ signal is low level).
   In the test mode* the interlock mechanism will not function.
   Laser diode oscillation will continue if pins 2 and 3 of CXA1471S (IC101) are connected to ground or pin 20 is connected to high level (ON) or the terminals of Q101 are shorted to each other (fault condition).
2. When the cover is opened, close viewing of the objective lens with the naked eye will cause exposure to a Class 1 or higher laser beam.

*: Refer to page 32 of the service manual (PD-6700, PD-5700, PD-4700), ARP2193.

PIONEER®
*The Art of Entertainment*

# *Service Manual*

ORDER NO.
**ARP2213**

COMPACT DISC PLAYER

# PD-6700
MEMXJ,UBXJ

# PD-6700-S
MEWMXJ

# PD-5700
MEMXJ,UBXJ,SD,UPW

# PD-5700-S
MEWMXJ

# PD-4700
MEMXJ,UBXJ,SD,UPW

- **Refer to the service manual ARP2193, PD-6700, PD-5700, and PD-4700.**
- **This manual is applicable to the PD-6700/MEMXJ, UBXJ, PD-6700-S/MEWMXJ, PD-5700/MEMXJ, UBXJ, SD, UPW, PD-5700-S/MEWMXJ, PD-4700/MEMXJ, UBXJ, SD and UPW types.**

**PIONEER ELECTRONIC CORPORATION** 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
**PIONEER ELECTRONICS SERVICE INC.** P.O. Box 1760, Long Beach, California 90801 U.S.A.
**PIONEER ELECTRONICS OF CANADA, INC.** 505 Cochrane Drive, Markham, Ontario L3R 8E3 Canada
**PIONEER ELECTRONIC [EUROPE] N.V.** Keetberglaan 1, 9120 Beveren, Belgium
**PIONEER ELECTRONICS AUSTRALIA PTY. LTD.** 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911
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IFJ APR. 1991 Printed in Japan

## 2.2 FOR PD-5700/MEMXJ, UBXJ, SD, UPW AND PD-5700-S/MEWMXJ TYPES

The PD-5700/MEMXJ, UBXJ, SD, UPW and PD-5700-S/MEWMXJ types are the same as the PD-5700/KU type with the exception of the following sections.

| Mark | Symbol & Description | Part No. | | | | | | Remarks |
|---|---|---|---|---|---|---|---|---|
| | | PD-5700 /KU type | PD-5700 /MEMXJ type | PD-5700 /UBXJ type | PD-5700 /SD type | PD-5700 /UPW type | PD-5700-S /MEWMXJ | |
| ◉ | Mother board assembly | PWM1425 | PWM1426 | PWM1426 | PWM1427 | PWM1426 | PWM1426 | |
| ⚠ | Power transformer (AC120V) | PTT1187 | • • • • • | • • • • • | • • • • • | • • • • • | • • • • • | |
| ⚠ | Power transformer (AC220V-230V, 230V-240V) | • • • • • | PTT1188 | PTT1189 | • • • • • | PTT1189 | PTT1188 | |
| ⚠ | Power transformer (AC110V, 120-127V, 220V-230V, 230V-240V) | • • • • • | • • • • • | • • • • • | PTT1190 | • • • • • | • • • • • | |
| ⚠ | Line voltage selector (AC110V, 120-127V, 220V-230V, 230V-240V) | • • • • • | • • • • • | • • • • • | PSB1002 | • • • • • | • • • • • | |
| ⚠ | Strain relief | CM-22 | CM-22B | CM-22B | CM-22B | CM-22B | CM-22B | |
| ⚠ | AC power cord | PDG1040 | PDG1003 | PDG1037 | PDG1013 | PDG1006 | PDG1003 | |
| | Connection cord with mini plug | PDE-319 | • • • • • | • • • • • | • • • • • | • • • • • | • • • • • | |
| | CD packing case | PHG1699 | PHG1625 | PHG1625 | PHG1623 | PHG1623 | PHG1626 | For packing |
| | Bonnet | PYY1147 | PYY1129 | PYY1129 | PYY1147 | PYY1147 | PYY1130 | |
| | Display window BK | PAM1463 | • • • • • | • • • • • | PAM1463 | PAM1463 | • • • • • | |
| | Display window BH | • • • • • | PAM1498 | PAM1498 | • • • • • | • • • • • | PAM1498 | |
| | Stopper | PNM1070 | PNM1070 | PNM1070 | • • • • • | • • • • • | PNM1070 | |
| | Insulator | VNK1095 | VNK1095 | VNK1095 | • • • • • | • • • • • | VNK1095 | |
| | Leg assembly | • • • • • | • • • • • | • • • • • | PXA1201 | PXA1201 | • • • • • | |
| | Headphone knob | PAC1370 | PAC1370 | PAC1370 | PAC1370 | PAC1370 | PAC1402 | |
| | Power button | PAC1540 | PAC1540 | PAC1540 | PAC1540 | PAC1540 | • • • • • | |
| | Power button S | • • • • • | • • • • • | • • • • • | • • • • • | • • • • • | PAC1580 | |
| | Play button B | PAC1542 | PAC1542 | PAC1542 | PAC1542 | PAC1542 | • • • • • | |
| | Play button BS | • • • • • | • • • • • | • • • • • | • • • • • | • • • • • | PAC1582 | |
| | Program button B | PAC1544 | PAC1544 | PAC1544 | PAC1544 | PAC1544 | • • • • • | |
| | Program button BS | • • • • • | • • • • • | • • • • • | • • • • • | • • • • • | PAC1584 | |
| | Headphone name plate S | • • • • • | • • • • • | • • • • • | • • • • • | • • • • • | PAM1500 | |
| | Function panel assembly | PEA1140 | PEA1140 | PEA1140 | PEA1140 | PEA1140 | PEA1145 | |
| | Tray name plate | PNW1900 | PNW1900 | PNW1900 | PNW1900 | PNW1900 | • • • • • | |
| | Tray name plate S | • • • • • | • • • • • | • • • • • | • • • • • | • • • • • | PNW1984 | |
| | Operating instructions (English) | PRB1138 | • • • • • | PRB1138 | PRB1138 | PRB1138 | • • • • • | |
| | Operating instructions (Spanish) | • • • • • | • • • • • | • • • • • | PRC1029 | • • • • • | • • • • • | |
| | Operating instructions (English/French) | • • • • • | PRE1141 | • • • • • | • • • • • | • • • • • | • • • • • | |
| | Operating instructions (German/Italian / Dutch/Swedish /Spanish/Portuguese) | • • • • • | PRF1041 | • • • • • | • • • • • | • • • • • | PRF1041 | |

# 2. CONTRAST OF MISCELLANEOUS PARTS

*NOTES:*

- *Parts without part number cannot be supplied.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*

The PD-6700/MEMXJ, UBXJ and PD-6700-S/MEWMXJ types are the same as the PD-6700/KU type with the exception of the following sections.

| Mark | Symbol & Description | Part No. | | | | Remarks |
|---|---|---|---|---|---|---|
| | | PD-6700 /KU type | PD-6700 /MEMXJ type | PD-6700 /UBXJ type | PD-6700-S /MEWMXJ | |
| ◉ | Mother board assembly | PWM1429 | PWM1430 | PWM1430 | PWM1430 | |
| ⚠ | Power transformer ( AC120V) | PTT1187 | • • • • • | • • • • • | • • • • • | |
| ⚠ | Power transformer (AC220V-230V, 230V-240V) | • • • • • | PTT1188 | PTT1189 | PTT1188 | |
| ⚠ | AC power cord | PDG1015 | PDG1003 | PDG1037 | PDG1003 | |
| ⚠ | Strain relief | CM-22C | CM-22B | CM-22B | CM-22B | |
| | CD packing case | PHG1700 | PHG1628 | PHG1628 | PHG1630 | For packing |
| | Connection cord with mini plug | PDE-319 | • • • • • | • • • • • | • • • • • | |
| | Bonnet | PYY1147 | PYY1129 | PYY1129 | PYY1130 | |
| | Display window CK | PAM1470 | • • • • • | • • • • • | • • • • • | |
| | Display window CH | • • • • • | PAM1499 | PAM1499 | PAM1499 | |
| | Headphone knob | PAC1370 | PAC1370 | PAC1370 | PAC1402 | |
| | Power button | PAC1540 | PAC1540 | PAC1540 | • • • • • | |
| | Power button S | • • • • • | • • • • • | • • • • • | PAC1580 | |
| | Play button B | PAC1542 | PAC1542 | PAC1542 | • • • • • | |
| | Play button BS | • • • • • | • • • • • | • • • • • | PAC1582 | |
| | Select button | PAC1545 | PAC1545 | PAC1545 | • • • • • | |
| | Select button S | • • • • • | • • • • • | • • • • • | PAC1587 | |
| | Function panel assembly | PEA1141 | PEA1141 | PEA1141 | PEA1148 | |
| | Tray name plate | PNW1900 | PNW1900 | PNW1900 | • • • • • | |
| | Tray name plate S | • • • • • | • • • • • | • • • • • | PNW1984 | |
| | Headphone name plate S | • • • • • | • • • • • | • • • • • | PAM1500 | |
| | Operating instructions(English) | PRB1138 | • • • • • | PRB1138 | • • • • • | |
| | Operating instructions(English/French) | • • • • • | PRE1141 | • • • • • | • • • • • | |
| | Operating instructions(German/Italian /Dutch/Swedish/Spanish/Portuguese) | • • • • • | PRF1041 | • • • • • | PRF1041 | |

### MOTHER BOARD ASSEMBLY(PWM1430)

The mother board assembly(PWM1430) is the same as the mother board assembly(PWM1429) with the exception of the following parts.

| Mark | Symbol & Description | Part No. | | Remarks |
|---|---|---|---|---|
| | | PWM1429 | PWM1430 | |
| ⚠ | IC31 | • • • • • | ICP-N10 | |
| | IC405 | NJM4558D-D | NJM5532DD | |
| | D391-D394 | 1SS254 | • • • • • | |
| | C393 | CCCSL101J50 | • • • • • | |
| | R391 | RD1/6PM244J | • • • • • | |
| | R392 | RD1/6PM102J | • • • • • | |
| | JA391, JA392 JACK(CONTROL IN, OUT ) | PKN1004 | • • • • • | |

# 12. SPECIFICATIONS

## 1. General

Type ..... Compact disc digital audio system
Usable discs ..... Compact Disc
Power requirements
U.K. and Australian models ..... AC 230—240V, 50/60Hz
European model ..... AC 220—230V, 50/60Hz
U.S. and Canadian models ..... AC 120V, 60Hz
Multi-voltage model ..... AC 110/120—127/220/240V (switchable) 50/60Hz
Power consumption ..... 12W
Operating temperature ..... +5°C—+35°C (+41°F—+95°F)
Weight ..... 3.6kg (7lb, 15oz)
External dimensions
PD-4700: U.K. and European models,
PD-5700: U.S., Canadian, U.K. and European models,
PD-6700: All models ..... 420(W) × 276(D) × 101(H)mm 16-9/16(W) × 10-7/8(D) × 4(H) in.
Other models ..... 420(W) × 276(D) × 96(H)mm 16-9/16(W) × 10-7/8(D) × 3-13/16(H) in.

## 2. Audio section

Frequency response ..... 2Hz—20kHz
Dynamic range ..... 96dB or more (EIAJ)
Total harmonic distortion ..... 0.003% or less (EIAJ)
Output voltage ..... 2.0V
Wow and flutter ..... Limit of measurement (±0.001% W.PEAK) or less (EIAJ)
Number of channels ..... 2 channels (stereo)

## 3. Output terminal

- Audio line output terminals
- CD-DECK SYNCHRO terminal
- Control input/output terminals
  (PD-4700: All models,
  PD-5700: U.S. and Canadian models only,
  PD-6700: U.S. and Canadian models only)
- Headphone jack (with volume control)
  (PD-4700: U.K. and European models only,
  PD-5700: All models,
  PD-6700: All models)
- Optical digital output terminal
  (PD-6700: All models)

## 4. Functions

- Play
- Pause
- Stop
- Manual search
- Track search
- Peak search
- Hi-lite scan
- Direct selection
- Single track repeat
- All track repeat
- Programmed repeat
- Random play repeat
- Programmed random play repeat
- Programmed playback (up to 24 tracks)
- Pause program
- Program check
- Program correction
- Program clear
- Auto program edit
- Compu program edit
- Digital level control (PD-6700/PD-5700: Remote control only)
- Random play
- Programmed random play
- Program hold
- Level hold
- Timer start
- CD-deck synchro

## 5. Accessories

- Remote control unit (PD-6700, PD-5700) ..... 1
- Size AAA/R03 dry cell batteries (PD-6700, PD-5700) ..... 2
- Output cable ..... 1
- Control cord
  (PD-6700: U.S. and Canadian models)
  (PD-5700: U.S. and Canadian models)
  (PD-4700: All models) ..... 1
- Operating instructions ..... 1

***NOTE:***
*The specifications and design of this product are subject to change without notice, due to improvements.*